



U.S. Department of the Interior
Bureau of Land Management
Colorado River District

The Proposed La Posa Travel Management Plan Environmental Assessment DOI-BLM-AZ-C020-2013-0003-EA



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March 2016

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CHAPTER 1: INTRODUCTION

1.0 SUMMARY

Federal agencies are directed to manage motorized vehicle use on public lands by President Nixon's 1972 Executive Order 11644, and President Carter's 1977 Executive Order 11989; which have been incorporated into the Code of Federal Regulations, under 43 Code of Federal Regulations (CFR) 8342.1. Executive Orders 11644 and 11989 were specifically issued to "ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands."

The Orders require federal agencies to monitor the effects of off-road vehicles use, and to immediately close areas or trails to off-road vehicles activities if it is determined that their use "will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands." EO 11989 also authorized federal agencies to adopt a policy closing all areas to off-road vehicles use unless specifically designated open.

Efforts for travel management on lands maintained by the Bureau of Land Management (BLM) focus on establishing a network of roads and primitive roads and trails for a variety of multiple-users while ensuring resource compliance to the standard required by Federal regulations.

The proposed La Posa Travel Management Plan Environmental Assessment (Plan EA) issued by the Yuma Field Office in the Colorado River District of the BLM considers four alternatives. Each alternative (except A, the No Action Alternative) follows prescriptions as stated in the La Posa Travel Management Plan (La Posa TMP). The alternatives differ in their approach to define a route network that offers liberal (Alternative B) to conservative access (Alternative D) within the Planning Area (defined below), and a balanced plan in-between (Alternative C). The interdisciplinary team evaluated each route¹ independently of one another to determine whether or not there were resource concerns before making any recommendations about the routes. The routes were then evaluated collectively to ensure the validity of their utility in the network.

The *2010 Yuma Resource Management Plan* (2010 Yuma RMP) designated the majority of public lands in the Planning Area as "Limited to Existing Routes²" according to 2005 aerial photographs until route designation can be completed. The 2010 Yuma RMP designated three areas closed to vehicle use within the Planning Area: the 440-acre core of the Dripping Springs Area of Critical Environmental Concern, and two areas totaling 1,000 acres in La Paz Valley.

1 2,053 routes were evaluated individually by a BLM interdisciplinary team consisting of resource specialists, an Arizona Game and Fish Department representative, and an Advanced Resource Solutions facilitator.

2 This travel limitation was first applied to public lands in the Planning Area in the the1987, Final Yuma District Resource Management Plan and EIS (page 23).

The New Water Mountain Wilderness Area was closed to motorized and mechanized transport (vehicles, bicycles, game carts, etc.) by the 1964 Wilderness Act. Five open routes traverse the La Paz Valley off-highway vehicle closed areas within corridors designated in the 2010 Yuma RMP. The Project Location for the Plan EA is shown in Figure 1.

Some primitive roads within the Planning Area are signed on the ground as numbered or “open” routes. This was done as part of the implementation of the 1997 *La Posa Interdisciplinary Management Plan and Environmental Assessment #AZ-055-96-051 (IMP)*. This Plan EA and the associated La Posa TMP would supersede the management actions from the *IMP* covering travel management.

1.1 PURPOSE AND NEED

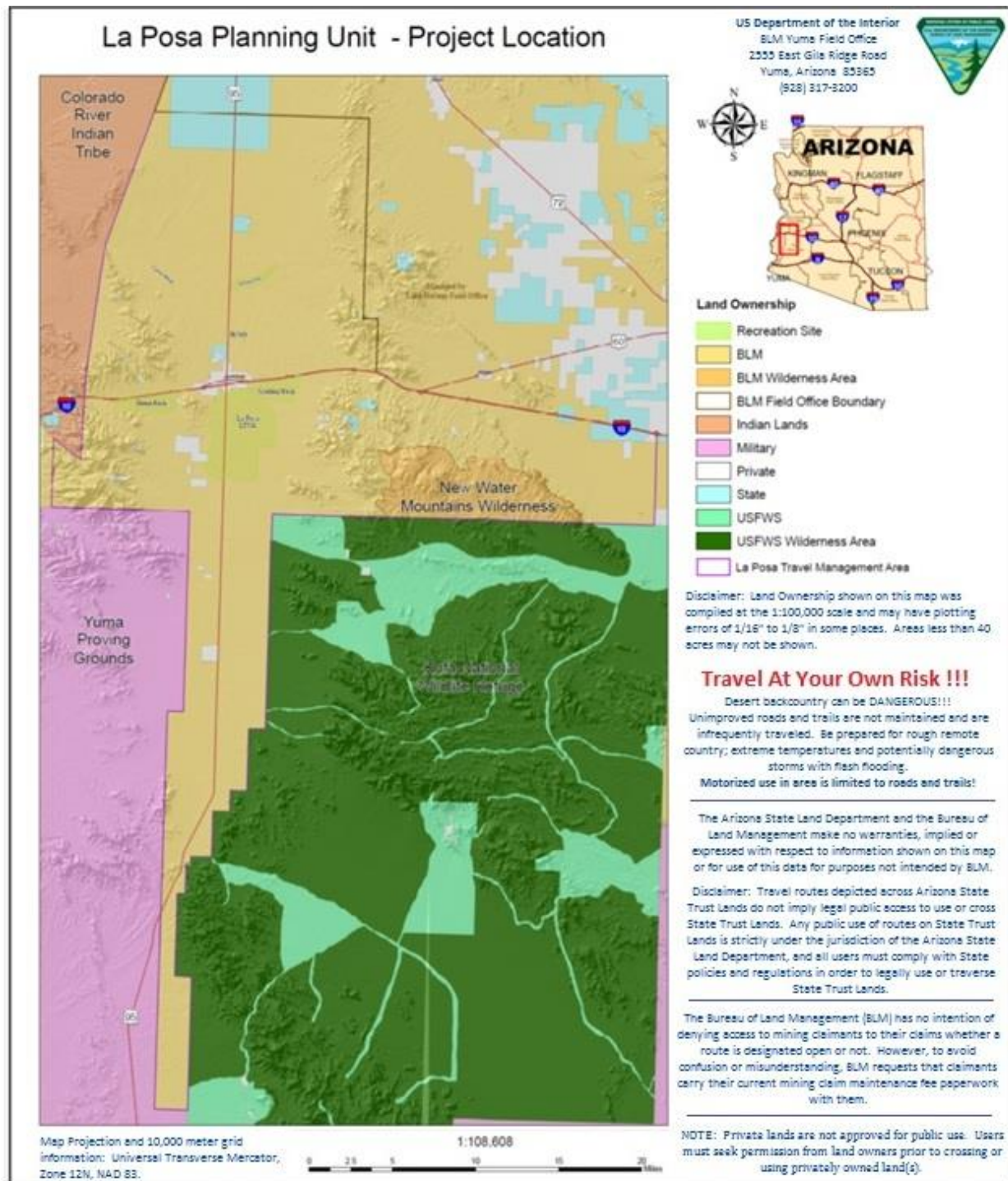
The purpose of the La Posa TMP is to identify and establish a travel network within the growing³ Planning Area for access to other BLM-managed public lands, local communities, U.S. Army Yuma Proving Ground, state, tribal lands, Kofa National Wildlife Refuge, and private lands. The intent is to delineate a transportation system that meets the access needs for administrative, private property and permitted commercial activities, and provide a diversity of recreational experiences while protecting the natural and cultural resources found on public lands while meeting Federal regulations required of BLM as land managers.

The need for the La Posa TMP is to:

- 1) Address and acknowledge illegally developed roads and route proliferation,
- 2) Provide for enforcement against travel and route violations,
- 3) Respond to environmental and wildlife concerns identified via Arizona Game and Fish Department (AZGFD) and BLM resource specialists regarding multiple locations within the Planning Area,
- 4) Consider public requests to manage specific routes within the Planning Area,
- 5) Identify additional areas where monitoring and mitigation are needed to enhance and/or preserve natural resources,
- 6) Ensure that the goals and objectives of the 2010 Yuma RMP are met for all the various resources and multiple uses, and
- 7) Comply with Executive Orders 11644 and 11989 stating that a travel management plan be developed to protect the natural resources of public lands while minimizing conflicts among the various uses of those lands.

3 Nationwide participation in off-highway vehicle use activity increased 32 percent between fall 1999 and 2005.

Figure 1. Project location of La Posa Travel Management Area (La Posa TMA).



1.2 LAND USE PLAN CONFORMANCE

The BLM's planning process is governed by the Federal Land Policy and Management Act of 1976 (FLPMA) as codified in 43 United States Code (U.S.C.) 1711 and 43 CFR 1600. These laws and regulations specify the administrative review processes for most of BLM's decisions and land use plans.

Regulations set the need for and encourage collaboration and public participation throughout the planning process. The process ensures that BLM-administered public lands are managed in accordance with the intent of Congress as stated in FLPMA, i.e., under the principles of multiple-use and sustained yield.

The Plan EA and the La Posa TMP are implementation level documents or action plans and are in conformance with the 2010 Yuma RMP decision TM-032; which states that the Yuma Field Office should “designate all inventoried routes as open, closed, or limited to public use.” It is also in conformance with national goals and objectives set through national strategic plans and manuals.

1.3 LA POSA PLANNING AREA

The La Posa Planning Area (Planning Area) is bounded on the north by the BLM Lake Havasu Field Office’s most southern boundary, to the northwest by the Colorado River Indian Reservation, to the southwest by Yuma Proving Ground, and to the southeast by Kofa National Wildlife Refuge. The top section of the Planning Area (629 square miles) completely surrounds the community of Quartzite, AZ and is one of five Travel Management Areas (TMA) administered by the Yuma Field Office of the BLM. The majority of the Planning Area is located in La Paz County (538 square miles). The smaller portion is in Yuma County (90 square miles), AZ.

Table 1. TMA/Planning Area Acreage

	Public Lands	State Lands	Private Lands	Total
Number of Acres	384,177	11,918	6,300	402,395

Within the Planning Area, the BLM has two locations that have special management objectives. Dripping Springs is an Area of Critical Environmental Concern (ACEC). This area was designated in the 2010 Yuma RMP. The second area, New Water Mountains Wilderness, was designated by Congress in the *Arizona Desert Wilderness Act of 1990*. The Plan EA does not make any route designations within the New Water Mountains Wilderness. Changes in wilderness management provisions would be made through the wilderness planning process.

In the 2010 Yuma RMP, two roads within the Planning Area are recognized for nomination of National Byway designation. The first is Plomosa Road, a proposed BLM Back Country Byway; and the second is US Highway 95, a potential US Department of Transportation’s National Scenic Byway. The travel management area contains three major utility corridors; one permitted grazing allotment, active mining operations, communication sites, private lands, state trust lands and wildlife management areas for bighorn sheep and desert tortoise. Primary access to the area is from Interstate 10, State Highway 95, Plomosa Road, and from many city streets in the community of Quartzsite, Arizona.

Within the Planning Area, 2,053 existing routes totaling approximately 1,814 total miles were identified and evaluated for the Plan EA. A comprehensive inventory of these routes took place in the evaluation process and is explained in Chapters 2 and 3. Some basic route information

collected during this process may help to describe the types of routes present within the Planning Area and the condition of those routes.

Table 2 Basic Route Information within Planning Area.

		# of Routes	Total Mileage
All Routes within Planning Area		2,053	1,814.17
Use Level*	Reclaiming	70	45.57
	Low	923	570.45
	Medium	615	502.41
	High	316	607.62
	Non-Existent	15	8.39
	Undetermined	114	73.79
Route Class	Primitive Road	1,982	1,548.60
	Road	58	260.25
	Trail	13	5.32
Route	ATV Track	6	6.49
	Dual Track	1,189	953.76
	Single Track	1	.15
	Graded Track	113	410.34
	Variable	744	443.43
Routes Classified as Redundant		84	27.76

* Use Level definitions are based on the May 2010 Version of the Arizona Route Inventory Data Dictionary.

- *Reclaiming*: Has not been used enough so that there is intact woody vegetation growing in it that would be damaged by the passage of a vehicle. Erosion and vegetation may block way, cause vehicle to get stuck and/or cause damage to vehicle.

- *High*: Direct or indirect evidence of regular usage.

- *Medium*: Routes where use was intermittently high and low over the length of the route.

- *Low*: Clear evidence of infrequent usage, in light of observed environmental factors (e.g. recent precipitation).

- *Non-Existent*: Generally for reclaiming roads, with rare exceptions for recently abandoned roads (it should be noted that numerous roads that appeared on maps were not encountered during the route inventory).

- *Undetermined*: Observer unable to determine use level, due to solid rock surface or environmental factors (e.g. recent precipitation).

1.4 BACKGROUND

Every winter, tens of thousands of out-of-town visitors and locals rely on the existing routes within the Planning Area to explore the surrounding backcountry in off-highway vehicles. Activities that go into and beyond the spring months include participation in group and individual recreational activities to photograph wildlife and landscape scenery, and/or to visit cultural resources and historic properties while they hike, bike, rock hound, geo-cache, hunt and camp. As stated in the Purpose and Need, reasons for needing a travel management plan include

eliminating route proliferation, providing for enforcement of travel and route violations, and for the protection of natural resources.

Although the process for a travel management plan was outlined in the 2010 Yuma RMP, the document was conceptualized long before then. The document actually began in 2003 with on-the-ground route surveys, GIS mapping exercises, and public and BLM scoping meetings.

The scoping process over the last 12 years has included reaching out to other agencies, including AZGFD who elected to participate throughout most of the 2,053 individual route evaluations, having several public meetings, and allowing for open comment periods, the last of which was open for one year. The process also included reaching out for input from the Resource Advisory Council, who offered valuable information (see Appendix A of the La Posa TMP), one of which was to build upon volunteer efforts within the Yuma and Quartzite communities.

Route inventories included hiring Advanced Resource Solutions (ARS) to initiate the evaluation process using their Route Evaluation Tree Process[©], which is defined in a graphic on the following page. A catalog of statutorily-driven factors was developed along with other planning criteria that could be affected on each route. The planning criteria⁴ used in this process falls under three general categories: (1) commercial, administrative, private-property and economic issues (CAPE); (2) public uses; and (3) special resource concerns. Each route requires adherence to 43 CFR 8342.1, which stipulates the criteria for the route's designation. A team comprised of BLM staff specialists, a representative from AZGFD, and an ARS facilitator (collectively known as the Interdisciplinary Evaluation Team (the Team)) then discussed 1) each individual route and 2) the utility of the route to the Planning Area before making recommendations about a route.

Advanced Resource Solutions - Route Evaluation Tree Process^{© 5}

The Route Evaluation Tree Process[©]:

- 1) For travel management/land use planning considers applicable environmental, legal, commercial and policy factors.
- 2) Flowchart gives the prospective client specific guidance as to what steps need to be taken throughout the travel management planning process.
- 3) Addresses legal and environmental concerns including NEPA, ESA, Presidential Executive Orders, BLM and USDA Forest Service Organic Acts, Mining and Grazing Acts, environmental constraints, recreation needs, and economic considerations, and
 - As a step within this process, the Route Evaluation Tree[©] software is utilized as a tool to collect data into a database.

4 The planning criteria is adapted from Travel Management, Administrative Action #216, 2010 Yuma Approved Resource Management Plan, page2-128.

5 Explanations provided for the Route Evaluation Tree Process[©] are taken from the Advanced Resource Solutions.

- The data can be utilized as a reference tool for future planning projects, to assist with route evaluation/designation, and to compile data for use during the NEPA analysis phase of a planning process.

1.5 SCOPING AND ISSUES

“Scoping” is defined as the process by which the BLM solicits internal and external input on the issues and effects that will be addressed in a planning process. The BLM Yuma Field Office conducted formal public scoping for EA from December 2007 to March 2008. BLM invited 22 different Federal, state, and local government agencies and 13 Native American tribes for input. Over 600 people attended BLM’s six public scoping meetings or “open houses.” These meetings were held in the communities of Yuma, Quartzsite, and Brenda, Arizona; and Blythe, California. During this scoping period, the Yuma Field Office received comments from 86 individuals, recreational clubs, government agencies, and Native American tribes.

1.5.1 INTERNAL SCOPING

The BLM interdisciplinary team analyzed the potential consequences of the Plan EA and the alternatives during route evaluations and meetings held throughout the development of the Plan EA. The following table displays which resource issues were identified by the team and which resource issues are analyzed and addressed in the subsequent chapters.

Table 3: Internal Scoping Checklist and Rationale

Resources & Programs Considered	Not Present	Present and Not Affected	Present and/or Potentially Affected	Rationale
Air Quality		X		See EA Section 3.1 for analysis
Areas of Critical Environmental Concern, Dripping Springs			X	See EA Section 3.2 for analysis
Climate Change		X		See EA Section 3.0.1.1 for analysis
Cultural/Paleontological Resources			X	See EA Section 3.3 for analysis
Environmental Justice		X		See EA Section 3.4 for analysis
Farmlands (Prime or Unique)	X			No prime or unique farmlands exist in the Planning Area.
Fish Habitat	X			No fish habitat exists in the Planning Area.
Floodplains	X			No floodplains exist in the Planning Area.
Fuels/Fire Management		X		Fuels/Fire Management is not expected to be impacted by route designations
Grazing			X	See EA Section 3.5 for analysis
Human Health and Public Safety			X	See EA Section 3.6 for analysis
Lands and Realty			X	See EA Section 3.7 for analysis

Resources & Programs Considered	Not Present	Present and Not Affected	Present and/or Potentially Affected	Rationale
Migratory Birds		X		The Plan EA only designates a travel network. It does not restrict or regulate potential impacts from motorized use within the route network.
Minerals		X		Access for any mining activity is described and approved in respective associated mining plan(s). Mining hazards discussed in Section 3.6; Rock-hounding discussed in Section 3.9
Native American Religious Concerns			X	See EA Section 3.8 for analysis
Rangelands and Forests	X			No rangelands or forests exist in the Planning Area.
Recreation			X	See EA Section 3.9 for analysis
Socioeconomics			X	See EA Section 3.10 for analysis
Soils			X	See EA Section 3.11 for analysis
Travel Management			X	See EA Section 3.12 for analysis
Vegetation and Special Status Species			X	See EA Section 3.13 for analysis
Visual Resources			X	See EA Section 3.14 for analysis
Wastes (Hazardous or Solid)			X	See Human Health & Safety, Section 3.6 for analysis
Water Quality (Drinking or Groundwater)		X		The establishment of a travel network does not impact water quality within the Planning Area.
Wetlands/Riparian Zones	X			No Wetlands or Riparian Zones exist in the Planning Area.
Wild & Scenic Rivers	X			No Wild & Scenic Rivers exist in the Planning Area.
Wild Horses/Burros		X		While a portion of the Planning Area overlaps the Herd Area and the Herd Management Area, population estimates have indicated that wild horses and burros favor the habitat adjacent to the Colorado River which is not found within the Planning Area.
Wilderness, New Water Mountains Wilderness			X	See EA Section 3.15 for analysis
Wildlife/Special Status Species			X	See EA Section 3.16 for analysis

1.5.2 ISSUES DEFINED BY PUBLIC

BLM provided the public with the four alternative maps and a public comment form on the internet in 2012. The Yuma Field Office also held additional public open houses in Yuma and Quartzsite, Arizona. This second comment period between February and April 2012 received 187 written comments on the alternative designated route networks for the Planning Area.

The scoping comments received for the Plan EA identified several different issues (listed below) and recommended designations for approximately 490 different routes within the Planning Area. These issues and concerns helped frame the purpose and need for the planning effort, identified

resources affected by the proposed action, and shaped the alternatives presented in this document. The issues identified in the scoping comments are listed below.

Table 4 Issues identified during external scoping

Issue	Response
The public urged the BLM to identify and address increasing public health and safety issues near communities (i.e., Rainbow Acres and La Paz Valley) related to off-highway vehicle noise, dust, and speed.	See Sections 3.1 and 3.6 for analysis
Commenters asked how route closures would impact the local economy, specifically the sales of off-road vehicles, parts, fuel, and the tourism industry.	See Section 3.10 for analysis
Many commenters suggested that all roads and drivable desert washes should remain available for off-highway vehicle travel.	See Sections 3.9, 3.11, and 3.12 for analysis
Commenters urged BLM to consider existing off-highway vehicle closures and restrictions in the surrounding New Water Mountains Wilderness, Colorado River Indian Reservation, Kofa National Wildlife Refuge, and U.S. Army Yuma Proving Ground before closing any routes within the Planning Area.	The BLM considered existing route closures and restrictions in the Route Evaluation process described in Section 1.1.2 in the La Posa TMP
The public identified the need for increased and improved educational and interpretive facilities, materials, and/or outreach related to off-highway vehicle use and environmental ethics (archeological site etiquette, Leave No Trace, etc.).	See Section 4.5 of the La Posa TMP
A need to establish a volunteer program to assist in BLM travel management efforts in the Planning Area was identified.	See Section 4.1 of the Plan EA and Appendix A of the La Posa TMP
During the last open scoping period public identified the need for access to rock-hounding areas.	See Section 3.9

CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES

The *Proposed Action* is one of four alternatives considered in this analysis. Each alternative (except the *No Action Alternative*) follows the Purpose and Need as described in Section 1.1 above. Additionally, while each alternative (except the *No Action Alternative*) differs in its respective approach to route network designation, they all follow the prescriptions outlined in the La Posa TMP. The entire La Posa TMP is presented in its entirety in Appendix H; however, to eliminate repetition between it and the Plan EA, portions of the La Posa TMP are included below for an understanding as to how it relates to the Plan EA:

2.1 THE LA POSA TMP

The RMP deferred choosing the designation of specific roads and trails as “open,” “closed,” or “limited,” to individual travel management plans. Routes with a particular restriction, such as a vehicle size, a season of use, administrative travel only, or limited to non-motorized vehicles are designated “limited.” Individuals walking or riding horses are permitted to travel cross country on public lands (although some locations may be closed for public safety.) The La Posa TMP addresses all existing and established roads, routes, and trails uses. It also addresses existing plans for future trails. The RMP establishes the process to evaluate and designate the individual routes (page 2-126) and is incorporated here by citation.

The La Posa Travel Management Area⁶ existing routes published in the RMP was based on BLM’s inventory at that time of 1,710 miles. That inventory was based on earlier field gathered GPS data taken around 1998, photo interpretation of 2005 aerial photography and field checking by BLM staff and contractors in 2007. The inventory was later updated with routes identified through the Draft RMP/Draft EIS 2008 comment process. Public comments taken in 2012 during the scoping process for this plan added additional routes for consideration. The final inventory identified 2,053 routes with a total mileage of approximately 1,814 miles.

The Yuma Field Office used the Route Evaluation Tree Process© developed by ARS to complete the route evaluation process. This process applies a systematic, standardized method to evaluate and collect data on each route. Yuma's staff conducted these evaluations from January 2008 through August 2011 with additional sessions through the end of 2012. In this process, a team of BLM staff specialists, a representative of the AZGFD, and an ARS facilitator (collectively known as the Interdisciplinary Evaluation Team (the Team)) discussed the overall area and each route individually. As part of the route evaluation process, the Team considered the goals and objectives for the area and for the entire travel network. They reviewed public concerns, as well as sensitive resources that might be impacted by the use of each route. In the end, they created alternatives for the network emphasizing different levels of access and resource protection.

Each route requires adherence to 43 CFR 8342.1, which stipulates the criteria for the route’s designation. How a route met these criteria for the alternative designations is noted in the report produced for each route. This report also provides a statement of rationale or purpose and need for each alternative.

Statewide Standard Arizona BLM Off-highway Regulations & Travel Management Policies listed in the La Posa TMP includes, but is not limited to:

1. Permittees (e.g., for hunting, wood gathering, livestock operators) must comply with TMP route designations. Exceptions may be made by the Authorized Officer.

⁶ The La Posa Travel Management Area is larger than the earlier planning area for the 1997 La Posa IMP.

2. There shall be no motorized access to harvested game cross country or off of a route designated open to the public, although use of a mechanized game carrier off of an open route is permitted outside of designated wilderness areas.
3. It is unlawful for a person to camp within one-fourth mile of a natural water hole containing water or a man-made watering facility containing water in such a place that wildlife or domestic stock will be denied access to the only reasonably available water.
4. Use of motorized or mechanized vehicles off of the designated route for the purpose of working livestock is prohibited.
5. State vehicle laws apply to motor vehicle use.
6. There are no posted speed limits on BLM roads, primitive roads or trails. The speed on primitive roads should be 15 – 25 miles per hour.
7. BLM will not develop, endorse or publish road or trail ratings. BLM may describe physical characteristics of a route.
8. Where pulling off a vehicle 100 feet from a route's centerline is allowed, impacts to natural and cultural resources shall be monitored on a continuing basis. When monitoring results show effects that exceed limits of acceptable change, motorized vehicles will not be allowed to pull off 100 feet from any designated route on either side of the centerline within the impacted area⁷.

The La Posa TMP also lists the Desired Future Conditions of the public lands with implementation of the guidelines offered in the document. Among the Desired Future Conditions (which are also stated in the RMP), and key to resource protection are some examples taken verbatim the La Posa TMP:

<u>Decision #</u>	<u>Desired Future Condition</u>
TM-009	The unauthorized proliferation of motorized and non-motorized recreation trails is reduced or halted.
TM-026	The YFO Transportation System minimizes impacts to identified sensitive resource values from routes that provide non-essential access.
VM-006	Special status species and Vegetation Habitat Management Areas are protected from ground-disturbing activities, such as Off-highway use.
WF-001	At a minimum, priority habitats (i.e., mountain ranges, riparian areas, desert washes, sand dunes, abandoned mines, and natural caves) and associated wildlife assemblages for terrestrial ecosystem management will remain in their current quality and quantity.

⁷ Instructional Memorandum AZ-2005-007.

2.2 ALTERNATIVE DEVELOPMENT

The alternatives were developed following careful consideration of the Administrative Actions regarding the Route Designation Process; which are found in Section 2.12.2, Part C of the 2010 Yuma RMP and are reiterated here.

<u>Decision #</u>	<u>Administrative Action</u>
AA-219:	Consider a range of alternative route designations in future TMPs, including alternatives that consider closing a majority of non-essential routes that were created without authorization and a majority of non-essential drivable desert washes.
AA-220:	Identify individual route management needs, including, but not limited to, use specifications, signs, and vegetation management.
AA-221:	Identify individual route maintenance needs to improve public health and safety and reduce the need to create redundant routes that avoid existing hazards.
AA-222:	Identify individual route monitoring needs to detect and evaluate travel-related impacts to adjacent resources so that management changes can occur accordingly.
AA-223:	Identify easements and ROWs (issued by BLM or others) needed to maintain or provide legal and safe access to the public lands.

The alternatives were also developed after receiving input from the staff, management, cooperating agencies and the public (as part of the scoping process). Similarly, the route designations were modified throughout the evaluation process following input from the staff, management, cooperating agencies, and the public.

2.2.1 COMPARISON OF ALL ALTERNATIVES

Table 5 shows the number of miles and percentages of open, limited, or closed routes in *Alternatives A, B, C, and D*. The maps of the alternatives give a more accurate picture of the differences between the designated travel networks proposed by each alternative.

Table 5 Mileage Comparison of Plan Alternatives

Alternative	Open*		Limited #		Closed		Total
	Miles	%	Miles	%	Miles	%	
A-No Action	1,814.17	100.0%	0	0%	0	0%	1,814.17
B-Access	1,253.69	69.1%	47.66	2.6%	512.82	28.3%	1,814.17
C-Proposed	988.65	54.5%	85.03	4.7%	740.49	40.8%	1,814.17
D-Resource Protection	569.56	31.4%	109.15	6.0%	1,135.46	62.6%	1,814.17

* Includes Mitigate/Open routes.

Includes Mitigate/Limit routes.

2.2.2 Alternative-A (No Action)

The *No Action Alternative (A)* represents an “as-is” scenario, or a base-line condition. It includes 100 percent of the routes from the 2005 aerial photographs described in the 2010 Yuma RMP. Under the *No Action Alternative* these routes would remain open to motorized use.

Table 6 Alternative-A Mileage Comparison by Designation

		Open*		Limited #		Closed		Total Miles
		Miles	%	Miles	%	Miles	%	
Use Level	Reclaiming	45.57	100%	0.00	0%	0.00	0%	45.57
	Low	570.45	100%	0.00	0%	0.00	0%	570.45
	Medium	502.41	100%	0.00	0%	0.00	0%	502.41
	High	607.62	100%	0.00	0%	0.00	0%	607.62
	Non-Existent	8.39	100%	0.00	0%	0.00	0%	8.39
	Undetermined	79.73	100%	0.00	0%	0.00	0%	79.73
Route Class	Primitive Road	1,548.60	100%	0.00	0%	0.00	0%	1,548.60
	Road	260.25	100%	0.00	0%	0.00	0%	260.25
	Trail	5.32	100%	0.00	0%	0.00	0%	5.32
Route	ATV Track	6.49	100%	0.00	0%	0.00	0%	6.49
	Dual Track	953.76	100%	0.00	0%	0.00	0%	953.76
	Single Track	.15	100%	0.00	0%	0.00	0%	.15
	Graded Track	410.34	100%	0.00	0%	0.00	0%	410.34
	Variable	443.43	100%	0.00	0%	0.00	0%	443.43

* Includes Mitigate/Open routes.

Includes Mitigate/Limit routes.

See Footer of Table 2 for definitions of use level

2.2.3 ALTERNATIVE-B (ACCESS)

Alternative B accommodates presents an accessible travel network to off-highway vehicle users throughout the Planning Area (see Table 7) while limiting access to certain cultural and historic sites. Of the action alternatives (B, C, and D), this is the least restrictive yet it does prevent adverse impacts from occurring to natural resources of concern. Routes within or leading to areas or sites of increased resource concern were designated as limited or closed access.

Table 7 Alternative B Mileage Comparison by Designation

		Open*		Limited#		Closed		Total Miles
		Miles	%	Miles	%	Miles	%	
Use Level	Reclaiming	.84	1.8%	0.00	0%	44.73	98.2%	45.57
	Low	252.27	44.2%	20.41	3.6%	297.77	52.2%	570.45
	Medium	396.52	79.9%	18.45	3.7%	87.44	17.4%	502.41
	High	584.64	96.2%	7.44	1.2%	15.54	2.6%	607.62
	Non-Existent	0.06	0.7%	0.08	1.0%	8.25	98.3%	8.39
	Undetermined	19.36	24.3%	1.28	1.6%	59.09	74.1%	79.73
Route Class	Primitive Road	1,002.02	64.7%	36.78	2.4%	509.80	32.9%	1,548.60
	Road	249.33	95.8%	10.73	4.1%	0.19	0.1%	260.25
	Trail	2.34	44%	.15	2.8%	2.83	53.2%	5.32

		Open*		Limited#		Closed		Total Miles
Route	ATV Track	4.45	68.6%	1.39	21.4%	0.65	10.0%	6.49
	Dual Track	638.98	67%	20.42	2.1%	294.36	30.9%	953.76
	Single Track	0.00	0%	.15	100%	0.00	0%	.15
	Graded Track	395.72	96.4%	13.14	3.2%	1.48	0.4%	410.34
	Variable	214.54	48.4%	12.56	2.8%	216.33	48.8%	443.43

* Includes Mitigate/Open routes.

Includes Mitigate/Limit routes.

See Footer of Table 2 for definitions of use level.

2.2.4 ALTERNATIVE-C (PROPOSED ACTION)

Alternative C, the *Proposed Action*, establishes a comprehensive route system designed to create loop trails, maximize recreation while protecting natural resources, and allows for an array of outdoor recreational opportunities for both motorized and non-motorized users (see Table 8). To meet these design goals, some routes identified during route evaluation have been designated as closed or are reserved for administrative or permitted access only.

Table 8 Alternative C Mileage Comparison by Designation

		Open*		Limited#		Closed		Total Miles
		Miles	%	Miles	%	Miles	%	
Use Level	Reclaiming	0.00	0%	0.00	0%	45.57	100%	45.57
	Low	132.48	23.2%	34.59	6.1%	403.38	70.7%	570.45
	Medium	315.61	62.8%	32.07	6.4%	154.73	30.8%	502.41
	High	530.08	87.2%	16.16	2.7%	61.38	10.1%	607.62
	Non-Existent	0.00	0%	0.08	1.0%	8.31	99.0%	8.39
	Undetermined	10.48	13.1%	2.13	2.7%	67.12	84.2%	79.73
Route Class	Primitive Road	743.96	48%	68.49	4.4%	736.15	47.5%	1,548.60
	Road	243.39	93.5%	16.39	6.3%	0.47	0.2%	260.25
	Trail	1.30	24.4%	.15	2.8%	3.87	72.7%	5.32
Route	ATV Track	4.45	68.6%	0.00	0%	2.04	31.4%	6.49
	Dual Track	468.85	49.2%	42.92	4.5%	441.99	46.3%	953.76
	Single Track	0.00	0%	.15	100%	0.00	0%	.15
	Graded Track	384.63	93.7%	23.12	5.6%	2.59	0.6%	410.34
	Variable	130.72	29.5%	18.84	4.2%	293.87	66.3%	443.43

* Includes Mitigate/Open routes.

Includes Mitigate/Limit routes.

See Footer of Table 2 for definitions of use level.

2.2.5 ALTERNATIVE-D (RESOURCE PROTECTION)

Alternative D reduces motorized recreation throughout the Planning Area (see Table 9) to improve management and protection of cultural and historic sites, as well as other natural resources. This alternative accommodates access throughout the Planning Area for off-highway

vehicle use as well as administrative needs for management of resource, cultural, and historic features.

Table 9 Alternative D Mileage Comparison by Designation

		Open*		Limited#		Closed		Total Miles
		Miles	%	Miles	%	Miles	%	
Use Level	Reclaiming	0.00	0%	0.00	0%	45.57	100%	45.57
	Low	7.38	1.3%	41.04	7.2%	522.03	91.5%	570.45
	Medium	162.97	32.4%	47.3	9.4%	292.14	58.1%	502.41
	High	395.36	65.1%	18.5	3%	193.76	31.9%	607.62
	Non-Existent	0.00	0%	0.08	1.0%	8.31	99.0%	8.39
	Undetermined	3.85	4.8%	2.23	2.8%	73.65	92.4%	79.73
Route Class	Primitive Road	332.51	21.5%	88.76	5.7%	1,127.33	72.8%	1,548.6
	Road	237.05	91.1%	20.24	7.8%	2.96	1.1%	260.25
	Trail	0.00	0%	.15	2.8%	5.17	97.2%	5.32
Route	ATV Track	0.00	0%	0.00	0%	6.49	100%	6.49
	Dual Track	219.19	23%	59.14	6.2%	675.43	70.8%	953.76
	Single Track	0.00	0%	.15	100%	0.00	0%	.15
	Graded Track	316.27	77.1%	30.48	7.4%	63.59	15.5%	410.34
	Variable	34.1	7.7%	19.38	4.4%	389.95	87.9	443.43

* Includes Mitigate/Open routes.

Includes Mitigate/Limit routes.

See Footer of Table 2 for definitions of use level.

2.2.6 ALTERNATIVES CONSIDERED BUT NOT ANALYZED FURTHER

Numerous route designation strategies were considered as possible alternatives to establish a route network within the Planning Area; however, the 2010 Yuma RMP prescribes that the Route Evaluation Tree Process© developed by Advanced Resource Solutions, Inc., be used, so other route designation strategies were not considered. The three action alternatives (B, C, and D) were developed using this process, but a number of other alternatives could be considered using this process. The alternatives described in Table 10 were considered but were not analyzed further due to the reasons described in the table.

Table 10 Alternatives Considered but Not Analyzed Further

Alternative Considered	Reasons for Not Analyzing Further
Designate an Open Off-highway Vehicle Management Area (or “play area”) in the sand dunes north of Quartzsite.	An “ <i>Open Area</i> ” designation is an RMP decision. This alternative was considered during the development of the 2010 Yuma RMP. The sand dunes north of Quartzsite are classified as stabilized and are known to support both special status plant and wildlife species, so an alternative considering the designation of an Open Off-highway Vehicle Management Area was eliminated from further analysis due to natural resource impact concerns.

Alternative Considered	Reasons for Not Analyzing Further
Designate additional Closed-Open Off-highway Vehicle Management Areas.	In conformance with federal policy outlined in the BLM Land-Use Planning Handbook, H-1601-1 (USDOI BLM 2005), the BLM Yuma Field Office designated all public lands as Open, Limited, or Closed Open Off-highway Vehicle Management Area as a part of the 2010 Yuma RMP. No input from the public, agencies, or tribes was received during scoping for that document that identified the need to designate additional Closed Off-highway Vehicle Management Areas and, therefore, no such proposals were analyzed.
Designate the spur route to Dripping Springs as <i>Open</i> to motorized vehicles.	The 2010 Yuma RMP designated a 440-acre Closed Off-highway Vehicle Management Area immediately surrounding Dripping Springs', which included previous Off-highway Vehicle Management Area routes and spurs LP3112, LP1000A, LP10087. A travel management plan is classified as an implementation-level plan of an RMP. This plan must comply with all RMP decisions, including the decision to prohibit Off-highway Vehicle Management Area use within the closed area.
Designate routes specifically for single-track motorized vehicles, horseback riding and mountain biking.	BLM Yuma Field Office ensured that all interested stakeholders were aware that the designation of routes specifically for single-track motorized vehicles, horseback riding, and mountain biking would be considered as a part of the Plan. No input from the public was received during the scoping process that identified the need to create trails within the Planning Area for these specific types of uses, and therefore, no additional routes for these uses are included in any of the alternatives.
Adopt a route network based on those identified in the BLM Yuma Field Office's 1997 <i>La Posa Interdisciplinary Management Plan</i> and the <i>La Posa Access Guide</i> .	Routes signed and numbered within the Planning Area were never formally evaluated based on any of the criteria identified in Executive Orders 11644 and 11989, <i>Use of Off-Road Vehicles on the Public Lands</i> . These routes were not officially designated in conformance with NEPA or the BLM's land-use planning process. Adopting the route network identified on the <i>La Posa Access Guide</i> would be an arbitrary approach to route designation that would not comply with existing federal regulations and policies, and therefore, such an alternative has not been considered.

2.3 METHODOLOGIES

Many of the sources that BLM resource specialists follow guidance for are cited at first mention of the protocol or practice in the document (i.e., following guidance from the 2010 Yuma RMP, etc.). Unless stated otherwise, the explanations provided below are applicable throughout the rest of this document.

2.3.1 DESIGN CRITERIA AND MITIGATION MEASURES

Design criteria are actions planned for in an alternative that when implemented are intended to reduce or eliminate impacts to the environment. Mitigation measures are actions that are recommended as additional measures to add to an alternative for increased protection to the environment. Analysis in this EA assumes that design criteria and mitigations measures under any alternative(s) would be implemented.

2.3.2 SPATIAL AND TEMPORAL BOUNDARIES

The geographic extent of cumulative impacts varies by the type of resource and impact. The timeframes, or temporal boundaries, for those impacts may also vary by resource. Four different spatial and temporal cumulative impact analysis areas (CIAA) have been developed and are listed with their total acreage in Table 11.

Table 11. Temporal and Spatial Boundaries by Resource

Resource	Cumulative Impact Analysis Area (CIAA)	Total CIAA Acreage	Temporal Boundary
ACEC, Cultural/Paleontological Resources, Grazing, Human Health and Public Safety, Lands and Realty, Migratory Birds, Native American Religious Concerns, Recreation, Soils, Vegetation and Special Status Species, Visual Resources, Hazardous or Solid Waste, Wilderness, Wildlife/Special Status Species	La Posa TMA/ Planning Area	402,395	10 years (estimated life of project)
Climate Change, Socioeconomics, Travel Management	Yuma Field Office	Approx. 5 million	10 years (estimated life of project)

2.3.3 SUBJECTIVE TERM DEFINITIONS

“**Adverse**” for cultural resources refers to the possibility that an impact can eliminate the opportunity or potential for an artifact to be listed on the Natural Register of Historic Places.

- For recreation, adverse can mean that a user is restricted from using a route.
- For natural resources such as soils, wildlife, or water quality, adverse refers to an impact moving beyond its current condition to that of a lesser quality or a more degraded state.

“**Beneficial**” for cultural resources refers to the possibility that an impact can enhance the opportunity or potential for an artifact to be listed on the Natural Register of Historic Places.

- For recreation, beneficial can mean that a user is encouraged to use a route.
- For natural resources such as soils, wildlife, or water quality, beneficial refers to an impact moving the current condition to that of an improved quality or toward a more natural state.

“**Effects**” and “**impacts**” are synonymous, as suggested in the CEQ regulations (40 CFR 1508.8).

“Existing”

The term “existing” in this EA refers to routes inventoried and data collected from 2005 aerial photography. The 2010 Yuma RMP page 2-127 under the Route Inventory Process states:

“Maps TMA-1 through TMA-5 identifies approximately 4,600 miles of routes and other transportation-related linear features located on BLM-administered lands within the Planning Area. Of these 4,600 miles, 3,200 miles have been inventoried on the ground and verified as routes by the BLM. The TMA maps also include 1,400 miles of transportation-related linear features that have not yet been verified on the ground by the BLM. These linear features include those identified by the public as routes during the DRMP/DEIS public review and comment period and those identified by the BLM from 2005 aerial photographs.”

“**Likely**” is considered to have greater than a 66% probability.

“**Long-term**” for this EA is defined as those impacts or actions (beneficial or adverse) that are expected to last ten years or more. One decade has been selected for reasons that include, but are not limited to:

- Observations made by BLM resource specialists with regards to their professional experience and understanding of cause and effect relationships for their respective resources.
- Native vegetation can, depending upon the species, take more than ten years to become firmly established in arid environments where water is often a growth limiting factor (Abella 2010).
- Soils exposed to both fire severity (duration) and intensity (temperature), not uncommon where drought resistant vegetation exists, can remove viable seed sources as well as result in the mortality of biological activity in the upper three inches of a soil horizon, resulting in delayed decomposition and nutrient cycling necessary for plant growth.
- BLM guiding documents (i.e., Resource Management Plans, Rangeland Health Standards, etc.) are normally reviewed and revised every five to fifteen years.

“**Negligible**” is defined as a condition whereby the overall condition will remain static (without progress or degradation) unless other variables are introduced into the environment.

“**Short-term**” – Generally considered to last from the point of implementation to within one growing season but could last to within a year or two, unless otherwise stated within a specific resource.

“**Unlikely**” is considered to have less than a 33% probability.

2.3.4 TRAVEL MANAGEMENT TERMS

The 2010 Yuma RMP deferred choosing the designation of specific roads and trails as “open,” “mitigate/open,” “limit,” “mitigate/limit,” or “close,” until individual travel management plans were developed. These designations are defined as follows:

Open: A route that is recommended open for all uses.

Mitigate/Open: A route that is recommended open for all uses, following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc.

Mitigate/Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc., following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Close: A route that is recommended for permanent closure to all use. Physical closure may include restoring the route to the degree possible to blend with surrounding landscape, as well as installation of physical barriers and signing at the original departure point, if necessary. (2010 Yuma RMP)

This EA analyzes four alternatives. In many cases, impacts are analyzed qualitatively but, when possible, quantitative impacts are evaluated. Evaluation focuses on direct and indirect effects on specific resources where they occur and cumulative impacts when applicable. For this EA the data collected was through contract with Advance Resource Solutions (ARS). Geographical Information System (GIS) databases were used for mapping, and calculating mileage and acreage. Comparison tables for each alternative were created for specific resources where possible and can be found in Appendix A.

CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.0 IMPACTS COMMON TO ALL ALTERNATIVES

The following events can result in beneficial or adverse impacts with any of the alternatives when they occur. Impacts related to individual resources are provided in the specific resource section. Recommended design criteria and/or mitigation measures to reduce or eliminate the impacts are listed below the appropriate section.

3.0.1 CLIMATE CHANGE

DOI Secretarial Order No. 3226 (2009) states that *“Each bureau and office of the Department will consider and analyze potential climate change impacts when undertaking long-range*

planning exercises...” The climate change related predictions⁸ for this report were gathered from several national, regional and state reports on global warming and then further focused on the Sonoran Desert Rapid Ecoregional Assessment (March 2012) for southwestern Arizona.

FUTURE ANALYSES

The Council on Environmental Quality notes that *agencies should recognize the scientific limits of their ability to accurately predict climate change effects, especially of a short-term nature, and not devote effort to analyzing wholly speculative effects*. The Yuma Field Office acknowledges this statement and concurs that while the effects of our planning efforts may be speculative, there is a need to consider the predicted impacts for a long-term time frame.

Peer-reviewed literature⁹ gathered for temperature is largely based on national historical temperatures, and modeling is used to estimate production of six gases (*greenhouse gases*): carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons and perfluorocarbons. The first three of these are considered long-lived gases initiated most through managed activities. Carbon dioxide is commonly associated with burning of fossil fuels (emissions from gasoline, oil, natural gas and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement); and agriculture is considered a main contributor for methane and nitrous oxide.

BLM is unable to quantitatively or scientifically access the amount of greenhouse gases produced through off-highway vehicle or other multiple-use vehicles using the travel network within the Planning Area without being wholly speculative and will therefore not be analyzing the impacts of greenhouse gases further in this document.

3.0.1.1 CLIMATE CHANGE IMPACTS COMMON UNDER ALL ALTERNATIVES

The following events can result in beneficial or adverse direct, indirect, and cumulative impacts with any of the alternatives. The summary below was identified during a literature review on climate change to comply with directives that BLM consider the impacts of climate change to projects that occur within the BLM Colorado River District.

⁸ Climate change related predictions: Interpretations are based on information provided on a regional scale with regard to historical records and modeling for future conditions in western states. Authors include: BLM 2011; Hegerl et al. 2007; Hamlet and Lettenmaier 2007; Inouye et al. 2000; Izaurralde et al. 2011; Janetos et al. 2008; Karl et al. 2009; Reid and Lisle 2008; Stewart et al. 2005; and Timmerman and Devoe 2006.

⁹ Peer-Reviewed Literature: BLM (2008) states that disseminated information based on non-agency reports/studies (i.e., third party scientific reports in credible publications) should be up-to-date, have integrity (based on accurate science and technology), objective, and useful to management for planning (BLM 2008, OMB 2004, DOI 2002).

Peer-Reviewed Predictions Applicable to the Colorado River District:

Temperature increase of **1 to 2 degree F** (Karl et al. 2009) between now and 2020 leading to:

- an increase in evapotranspiration (Hamlet and Lettenmaier 2007, Hegerl et al. 2007);
- an increase for insects and non-native/noxious species (Chambers and Wisdom, 2009);
- reduction in soil moisture for plant available water (Izaurrealde et al. 2011);
- increase in drought frequency and severity (Bernstein 2007);
- the potential for an increase in wildfires resulting from a combination of the above factors (Ehrenfeld 2003, Norton 2003).

Precipitation could vary from ***no change*** to as much as **15% less** than present (Karl et al. 2009, Meehl 2006, Timmerman et al. 1999) suggesting the:

- potential for species shifting geographically to adapt to changing conditions (Crozier 2003, 2004; Inouye et al. 2000; Reid and Lisle 2008);
- mortality of species unable to adapt to changing conditions (Beever et al. 2003; Galbreath et al. 2009);
- increase of storm intensity (Bernstein 2007, CCSP 2008, Furniss 2010); and
- higher potential for floods and subsequent erosion on soils with high clay content (Janetos et al. 2008).

3.0.1.2 GENERAL MITIGATION MEASURES ASSOCIATED WITH CLIMATE CHANGE

Adaptive Management

“Adaptive management can help an agency take corrective action if mitigation commitments originally made in NEPA and decision documents fail to achieve projected environmental out-comes and there is remaining federal action. Agencies can, in their NEPA reviews, establish and analyze mitigation measures that are projected to result in the desired environmental out-comes, and can then identify those mitigation principles or measures that it would apply in the event the initial mitigation commitments are not implemented or effective. Such adaptive management techniques can be advantageous to both the environment and the agency's project goals.” CEQ, 2011.

Methods the Yuma Field Office can use in adaptive management for the La Posa TMP include:

- Following guidelines as stated in La Posa TMP
- Monitoring of key routes (baseline condition and seasonal follow-up surveys)
 - Field Trip Notes, especially where specialists note species (plant or animal) exhibiting infestation, resistance, resilience, or demise

- Documenting through assigned tracking forms (i.e., Route condition surveys, etc.)
- Using the "precautionary principle"¹⁰

3.0.2 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

The primary past and present actions that would affect the resources analyzed in this EA are mineral exploration and mining operations, various transmission lines, recreational off-highway use, and organized off-highway use events.

Reasonably foreseeable actions (RFAs) are those for which there are existing decisions, funding, formal proposals, or which are highly probable based on known opportunities or trends. There is potential for development of solar and wind energy farms within the Planning Area both on private and on public lands.

The Quartzsite Solar Energy Project, a 100-megawatt solar-powered electrical generation facility about 10 miles north of Quartzsite and adjacent to Arizona State Route 95, completed the environmental process in June 2013 and is awaiting authorization to begin construction. The generation plant, power line and ancillary facilities would be on approximately 1,685 acres of BLM-administered land. These types of facilities will require new and additional travel access and utility lines and can alter the evaluated network.

In 2015 the BLM received an application to construct a 500 kV transmission line that is expected to originate in the Delaney Substation, near Buckeye, AZ, and terminate at the Colorado River Substation south of Blythe, CA. This proposed alignment would cross through the Planning Area.

Continued development and growth is expected around Quartzsite. The disposal of public lands is also expected to allow for development within the town. Phase I of the proposed disposal currently includes 1,204 acres. If these lands are disposed of and then constructed on, they can increase the public demand for travel routes. At the same time, they can also limit access to backcountry and public lands from within the Quartzsite Community.

3.0.3 CUMULATIVE IMPACT ANALYSIS

As defined in 40 CFR 1508.7 (Council on Environmental Quality [CEQ] regulations for implementing the NEPA) a cumulative impact is an impact on the environment that results from

¹⁰ Precautionary principle: be conservative when planning--especially if the outcome of an activity is uncertain and harmful effects are possible.

the incremental impact of the action when added to other past, present, and reasonably foreseeable actions, regardless of which agency (federal or nonfederal) or person undertakes such other actions. Cumulative effects can also result from individually minor but collectively significant actions taking place over a period of time.

Specific examples of cumulative effects that can occur within the Planning Area include:

- BLM activities (monitoring; vegetative and wildlife habitat improvement projects; invasive, non-native species control efforts; etc.);
- Recreational activities: wildlife viewing, hunting, camping, racing events, etc.;
- Public forms of multiple-use (gaining access to/from private or public lands) across the Planning Area;
- Maintenance forms of multiple-use (utility companies maintaining power lines on right-of-ways, lands/realty surveys, etc.);
- Mineral exploration, extraction, and/or development;
- State/county services (weed eradication; invasive, non-native species control efforts; highway maintenance, etc.)

This analysis looks at the cumulative effects of the No Action Alternative and any of the three Action Alternatives (*B, C & D*) on the affected resources given past, present and reasonably foreseeable actions.

3.1 AIR QUALITY

AFFECTED ENVIRONMENT

The Planning Area for the La Posa TMP falls within a PM-10 non-attainment zone.

During one of the scoping periods for the Plan EA comments were received about the potential for dust in the communities of Rainbow Acres and La Paz Valley. Dust is associated with aridisols, which are the dominant soil order in the Planning Area. This is because aridisols are:

- 1) low in organic materials which often support growth of perennial vegetation and hold soils,
- 2) high in silt and clay content, making the soil susceptible to wind and water erosion, and
- 3) typically associated with arid environments where water is often a limiting factor.

More about soils can be found in Section 3.11.

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action): This alternative would not close or restrict use on any of the routes, so routes currently experiencing dust concerns are expected to continue being subject to that

dust. Similarly none of the routes currently on desert pavement would be closed to allow for reclamation.

Alternative B (Access): This alternative would increase the need for management by formally establishing an extensive travel network. Impacts by dust are still expected under this alternative as only 4% of mileage on routes in highly erosive soils is expected to be closed, 23% of the mileage on routes with known soil erosion concerns is expected to be closed, and 28% of the mileage on routes on desert pavement is expected to be closed.

Alternative C (Proposed action): This alternative would further increase the need for management by establishing a travel network. Impacts by dust are still expected under this alternative as 13% of the mileage on routes in highly erosive soils would be closed, 34% of the mileage on routes with known soil erosion concerns would be closed, and 39% of the mileage on routes on desert pavement would be closed. Where dust will become non-existent on routes that are proposed for closure, dust is expected to increase on those that are left open as they are expected to receive increased travel.

Alternative D (Resource Protection): This alternative would increase the need for management by establishing a travel network. This alternative however provides the highest amount of reduced routes, which is expected to lower direct impacts to soils for those routes that are closed. The direct impacts to soils on remaining open routes would likely increase due to the additional traffic directed to these open routes. Under this alternative, 15% of the mileage on routes in highly erosive soils would be closed, 51% of the mileage on routes with known soil erosion concerns would be closed, and 53% of the mileage on routes on desert pavement would be closed. Where dust will become non-existent on routes that are proposed for closure, dust is expected to increase on those that are left open as they are expected to receive increased travel.

Cumulative impacts for all alternatives: There could be a short-term increase in the total number of days of high dust due to accumulation of windblown dust from denuded areas during development of the Quartzsite Solar Energy Project. Direct impacts from off-highway vehicle recreation created dust could affect solar power generating equipment in the long-term but impacts are expected to be seasonal (i.e., when winter travelers are in the area).

Dust concerns are expected to occur throughout the route network and grow proportionately parallel with and as population and visitor numbers expand.

3.2 AREA OF CRITICAL ENVIRONMENTAL CONCERN, DRIPPING SPRINGS

AFFECTED ENVIRONMENT

Located within the Plomosa Mountains, the Dripping Springs Area of Critical Environmental Concern (ACEC) contains several archaeological and historic features that are eligible for listing on the National Register of Historic Places.

The 11,700-acre Dripping Springs ACEC was designated in 2010 to preserve and protect relevant and important resource values¹¹. This ACEC contains the only perennial spring within the Yuma Field Office, thus providing wildlife with a vital source of water at all times, and especially during drought. The ACEC is important desert bighorn sheep (*Ovis canadensis nelsoni*) habitat, and it is often used as a source of sheep to be transplanted across AZ. Unique rock outcroppings, sheer cliffs, and dense stands of diverse native vegetation all contribute to the scenic values of the ACEC. During the route evaluation process, 69 routes were identified within the ACEC and an additional 34 routes were identified proximate to its boundary.

Table 12. Inventoried Routes Associated with Dripping Springs ACEC

Dripping Springs ACEC Associated Routes		#
Routes within ACEC		69
Routes proximate to ACEC		34

The 2010 Yuma RMP designated a Closed Off-highway Vehicle Management Area within 440-acres in the core area of the ACEC; therefore, the Plan EA does not address this closed area. The 2010 Yuma RMP also closed the Dripping Springs ACEC 640-acre core area around the spring to public use during extreme or severe drought conditions to protect desert bighorn sheep populations, as recommended by AZGFD. An ACEC plan would implement the management actions to address camping and other uses within the ACEC and develop non-motorized trails within the 440-acre core area with trailheads.

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action): The *No Action Alternative* would designate all primitive roads and trails “open” within the ACEC except in the 440-acre Closed Off-highway Vehicle Management Area designated in the 2010 Yuma RMP. Resource concerns associated with wildlife and wildlife habitat specifically associated with bighorn sheep acknowledged by AZGFD and BLM resource specialists would not be addressed or mitigated under this alternative.

Alternative B (Access): This alternative would close approximately 33% of routes within the ACEC and about 26% of routes proximate to the ACEC boundary. Due to the number of routes identified open to off-highway vehicle traffic, this alternative may still contribute to the alteration to cultural and/or biological resources. This alternative can also have an indirect adverse impact on opportunities to view the ACEC values by motorized vehicle, since the historical resources and natural beauty are part of what draws visitors into the ACEC.

Alternative C (Proposed action): This alternative closes routes or places a restriction on off-highway vehicle use on those trails which may have the highest potential to impact cultural and biological resources. This alternative would close approximately 58% of routes within the

¹¹ The relevance and importance criteria can be found in Appendix D, Yuma Field Office. Record of Decision and Approved Resource Management Plan, January 2010.

ACEC and 41% of routes proximate to the ACEC boundary. This alternative would provide access to the ACEC while retaining the values for which the ACEC was designated.

Alternative D (Resource Protection): By closing or placing restrictions on 86% of the routes within the ACEC and 62% of the routes proximate to the ACEC boundary, this alternative could be seen as the most responsive to the biological and cultural resources associated with the ACEC; however, this option could reduce the expanse of experiences available to visitors by motorized vehicle.

Table 13. Comparison of Closed Routes Associated with Dripping Springs ACEC

Alternative	Routes Closed within ACEC (% of Total Routes*)	Routes Closed proximate to ACEC (% of Total Routes*)
A-No Action	0 (0%)	0 (0%)
B-Access	23 (33%)	9 (26%)
C-Proposed	40 (58%)	14 (41%)
D-Resource Protection	59 (86%)	21 (62%)

* See Table 12 for Total Routes

3.3 CULTURAL/PALEONTOLOGICAL RESOURCES

AFFECTED ENVIRONMENT

Public lands within the Planning Area have a rich and diverse cultural heritage. The ancestors of today's Native Americans lived in the region for thousands of years. The United States assumed jurisdiction of most of these lands in 1848 as a result of the Mexican-American War. Arizona soon had a growing pioneer population and an economy based on ranching and mining. Parts of the Planning Area were also used for military training exercises in preparation for World War II.

While the Planning Area has not received a comprehensive cultural resource inventory, numerous project-specific inventories have occurred. These inventories have focused primarily on utility corridors (i.e., natural gas and transmission lines) as well as land sales and disposals. Over 750 archaeological sites have been identified in the Planning Area as a result of these inventories. Due to the size of the area, the observed site density, and the predicted presence of archaeological sites and features on desert pavements, the possibilities for unknown cultural resources are high across the Planning Area. Recorded prehistoric cultural resources vary from individual artifacts and features to complexes of prehistoric trails, petroglyphs and campsites, while historic sites include early mining operations, ranching activities, and military use.

During the planning process, a BLM cultural resource specialist with access to specific site records and locational information (AZSite) participated and made recommendations to minimize impacts to previously-recorded sites. In total, 306 routes within the Planning Area were located in or traversed through known archaeological site boundaries. Given the topography and the archaeological context of the general area, the surveyed area was found to have 698 routes within ¼ mile of a known archaeological site boundary and 876 routes were

identified as being in or traversing through an area believed to have a high probability of having unknown cultural resources present.

No Special Cultural Resource Management Areas (SCRMA) were identified in the Planning Area during the land use planning process; however, several cultural properties were designated for Public Use in the Planning Area including Dripping Springs, the Fisherman Intaglio, and the Tyson Wash Petroglyphs. See Appendix A, Chart 2 for comparison of routes and cultural resources by alternative.

ENVIRONMENTAL CONSEQUENCES

According to BLM Instructional Memorandum No. 2012-067, “designation of areas and specific travel management networks of roads and trails generally has the beneficial effect of controlling impacts of off-highway vehicle use on public lands, including historic properties and traditional use areas. Designation provides a purposefully designed and clearly delineated travel management network for off-highway vehicle usage, reduces the potential for user-caused route proliferation, and facilitates travel management and law enforcement efforts. In addition, route designations prohibit indiscriminate cross country travel that causes or may cause adverse impacts to historic properties and other resources.” The following alternatives are evaluated using the premise set forth in this policy. Table 14 compares the route designations under each alternative as they relate to cultural resource impacts).

Table 14. Inventoried Routes Associated with Cultural Resources in Planning Area

# of Routes	
Routes In or Through Known Archaeological Sites	306
Routes within ¼ Mile of Known Archaeological Sites	698
Routes within Areas with High Probability of Cultural Resources*	876
*Areas with High Probability of Cultural Resources were identified due to their proximity to previously recorded sites as well as their topographical location (i.e., on desert pavement or adjacent to ephemeral washes).	

Alternative A (No Action): This alternative would designate all primitive roads and trails “open” without regard to possible conflicts with cultural resources. Management of the routes would be left to future site specific project plans. This alternative would not have the beneficial impact of controlling impacts of off-highway vehicle use on cultural resources as no routes would be closed to protect cultural resources. The No Action Alternative also does not provide BLM with the support needed to manage “wild-cat” routes illegally constructed into areas where unknown and yet to be identified cultural properties exist.

Alternative B: (Access): While this alternative provides a specific travel management network that is expected to minimize impacts of off-highway vehicle use on cultural resources; it could still contribute to the unwanted alteration of cultural resources within the Planning Area, such as continued erosion occasioned by vehicular traffic. This is due to the number of routes identified as open to off-highway vehicle traffic under this alternative. It would, therefore, have a less beneficial effect on cultural resources than either of the two remaining alternatives. Under this alternative, 40% of the roads in or going through known archaeological sites would be closed, 46% of the routes within ¼ mile of known archaeological sites would be closed, and 43% of the routes within areas with a high probability of cultural resources would be closed.

Alternative C (Proposed action): This alternative closes routes or places a restriction on off-highway vehicle use on those trails which may have the highest potential to create direct impacts to known cultural resources. This alternative would have a more beneficial effect of controlling impacts of off-highway vehicle use on cultural resources than *Alternative B*, but a less beneficial effect than *Alternative D*. Under this alternative, 51% of the roads in or through known archaeological sites would be closed, 62% of the routes within ¼ mile of known archaeological sites would be closed, and 60% of the routes within areas with a high probability of cultural resources would be closed.

Alternative D (Resource Protection): This alternative is expected to have the most beneficial effect for minimizing impacts of off-highway vehicle use on cultural resources. However, vehicular travel would be more concentrated on the remaining open routes; which could intensify damage to known archaeological sites along the open routes. Under this alternative, 67% of the roads in or going through known archaeological sites would be closed, 74% of the routes within ¼ mile of known archaeological sites would be closed, and 79% of the routes within areas with a high probability of cultural resources would be closed.

Table 15. Comparison of Closed Routes Associated with Cultural Resources in Planning Area

Alternative	Routes Closed In or Through Known Archaeological Sites (% of Total Routes*)	Routes Closed within ¼ Mile of Known Archaeological Sites (% of Total Routes*)	Routes Closed within Areas with High Probability of Cultural Resources (% of Total Routes*)
A-No Action	0 (0%)	0 (0%)	0 (0%)
B-Access	121 (40%)	321 (46%)	378 (43%)
C-Proposed	157 (51%)	434 (62%)	527 (60%)
D-Resource Protection	204 (67%)	520 (74%)	691 (79%)

* See Table 14 for Total Routes

As route travel increases in this area, conflict can occur between users seeking differing recreational experiences. Additionally, as urban development encroaches upon public lands, recreation pressures can negatively impact natural and cultural resources, as well as other authorized uses such as grazing and mining. The growth in off-highway vehicle use since the signing of Executive Order 11644 of 1972 has caused challenges in planning and designating routes on public lands.

3.4 ENVIRONMENTAL JUSTICE

AFFECTED ENVIRONMENT

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations (59 CFR 7629, 16 February 1994), requires that federal agencies identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The BLM also includes specific consideration of federally recognized American Indian tribal nations in its environmental justice analyses (BLM Land Use Planning Handbook H1601, Appendix D).

Environmental Justice terminology developed by the President's Council on Environmental Quality (CEQ 1997) and used by the BLM is provided below.

- Low-income population. A low-income population is determined based on annual statistical poverty thresholds developed by the US Census Bureau. In 2015, the US Census Bureau poverty level for 2014 (the most recent year data is available) was determined to be a total income of \$12,316 for an individual under the age of 65, and \$24,008 for a family of four. A low-income community may include either a group of individuals living in geographic proximity to one another or dispersed individuals, such as migrant workers or Native Americans.
- Minority. Minorities are individuals who are members of the following population groups: American Indian, Alaskan Native, Asian, Pacific Islander, Black, or Hispanic.
- Minority population area. A minority population area is so defined if either the aggregate population of all minority groups combined exceeds 50 percent of the total population in the area or if the percentage of the population in the area comprising all minority groups is meaningfully greater than the minority population percentage in the broader region. Like a low-income population, a minority population may include either individuals living in geographic proximity to one another or dispersed individuals.
- Comparison population. For the purpose of identifying a minority population or a low-income population concentration, the comparison population used in this study is the state of Arizona as a whole.

An analysis of minority, low income, and American Indian populations in the study area shows that 56.8% of the general population self identifies as Hispanic. In comparison, 29.9% of the population of the state of Arizona self identifies as Hispanic. This Hispanic population both exceeds 50% of the population of the study area, and is meaningfully greater (almost twice as large) as the Hispanic population of the State as a whole. By these criteria the Hispanic population of the study area is considered an Environmental Justice population.

BLM acknowledges that the Hispanic population is considered an Environmental Justice population. Further, BLM has determined that none of the Proposed Alternatives is expected to have a disproportionate or adverse environmental or health effects to the Hispanic population.

Table 16. Arizona Planning Area Population Study As of 2013

Comparison of Study Area to State Hispanic Population, 2013*				
	La Paz County	Yuma County	AZ	County/ Region
Total Population	20,408	199,026	6,479,703	219,434
Hispanic or Latino (of any race)	4,941	119,671	1,935,948	124,612
Not Hispanic or Latino	15,467	79,355	4,543,755	94,822
	La Paz County	Yuma County	AZ	County/ Region
White	12,574	69,087	3,716,047	81,661
Black or African American	192	3,671	252,752	3,863
American Indian	2,373	2,059	258,904	4,432
Asian	142	2,103	178,627	2,245
Native Hawaiian & Other Pacific Islander	45	241	11,818	286
Other race(s)	0	61	7,539	61
Two or more races	141	2,133	118,068	2,274
Percent of Total				
Hispanic or Latino (of any race)	24.2%	60.1%	29.9%	56.8%
Not Hispanic or Latino	75.8%	39.9%	70.1%	43.2%
White	61.6%	34.7%	57.3%	37.2%
Black or African American	0.9%	1.8%	3.9%	1.8%
American Indian	11.6%	1.0%	4.0%	2.0%
Asian	0.7%	1.1%	2.8%	1.0%
Native Hawaiian & Other Pacific Islander	0.2%	0.1%	0.2%	0.1%
Other race(s)	0.0%	0.0%	0.1%	0.0%
Two or more races	0.7%	1.1%	1.8%	1.0%

* The data in this table are calculated by ACS using annual surveys conducted during 2009-2013 and are representative of average characteristics during this period.

All tables adapted from Economic Profile System 2015, at

<http://headwaterseconomics.org/tools/economic-profile-system>, highlights added.

County Region: The combined La Paz and Yuma County study area.

BLM Environmental Justice guidance in Land Use Planning Handbook H1601, Appendix D, also specifies that federally recognized Tribes be considered for Environmental Justice effects. The Colorado River Indian Tribe (CRIT), the Quechan Tribe, and the Cocopah Tribe were all considered as part of this planning effort. The CRIT, due to geographic proximity to the study area, was considered to be an Environmental Justice population of concern.

BLM has determined that the Proposed Action is not expected to have a disproportionate or adverse environmental or health effects to the CRIT.

As no disproportionate, adverse environmental or health effects are expected to occur to either the Hispanic or CRIT populations, Environmental Justice is not analyzed further in the Plan EA.

3.5 GRAZING

AFFECTED ENVIRONMENT

The Planning Area includes a portion of the Crowder-Weiser grazing allotment. This allotment is under a permit which includes existing range improvements and ensures the grazing operator's right to access those range improvements. It also includes a now-active (since this document's original surveys) allotment (Nine-Mile Allotment) that has not been run in 20 years.

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action): The No Action Alternative is expected to have negligible to minor impact for grazing on the Crowder-Weiser and Nine-Mile Allotments. Route users are expected to continuing closing gates and maintain respect for fence lines. The permittees will not lose access to range improvements and permits will not be changed under this alternative.

Alternative B (Access): Effects are expected to be similar if not the same as the *No Action Alternative*. The permittee will have access to range improvements via designated routes. The grazing permit will not be altered in any way following implementation of this alternative.

Alternative C (Proposed action): Effects are expected to be similar if not the same as *Alternative B*. The permittee will have access to range improvements via designated routes and/or routes designated for administrative use only. Conflicts between recreation use and grazing operations may be reduced by restrictions on recreation use near range improvements. The grazing permit will not be altered in any way following implementation of this alternative.

Alternative D (Resource Protection): Effects are expected to be similar if not the same as *Alternative B*. The permittee will have access to range improvements via designated routes and/or routes designated for administrative use only. Conflicts between recreation use and grazing operations may be further reduced by fewer open routes near range improvements. The grazing permit will not be altered in any way following implementation of this alternative.

3.6 HUMAN HEALTH AND PUBLIC SAFETY

AFFECTED ENVIRONMENT

External scoping comments from the public regarding human health and safety were limited to concerns about dust generated on the travel network and speed(ing) near community areas. Dust is addressed in Section 3.1-Air Quality. Speed is addressed in the La Posa TMP by defining maximum speed limits on all routes and signage that will be posted throughout the Planning Area.

Internal scoping from by the BLM interdisciplinary team also identified potential safety concerns for human health from abandoned mines located throughout the Planning Area. Although BLM publishes and promotes interpretative education encouraging public to Stay Out of Mines to Stay

Alive some public still choose to explore abandoned mines. The type of hazards found at these sites include: open shafts and adits, pits and quarries, high and steep walls of pits and trenches, a potential for the presence of unstable explosives, the presence of contaminated air or gas in underground workings, and the presence of unstable buildings or structures.

Other activities public may seek out during rock-hounding activities when they are at or near any type of mining site (abandoned or not) includes mineralized waste rock, ore stockpiles, and mill tailings. Any of these can be considered hazardous sites once the natural mineral elements are exposed to and interact with oxygen and rain water. Mill tailings may contain traces of metals and chemicals such as acids. Mining and milling wastes (containing sulfides) have the potential to mineralize and can create acid mine drainage. The extent to which these problems exist within the Planning Area is unknown as a survey has not been conducted; however, during the route inventory for the Planning Area, open mine shafts were identified on numerous routes as indicated in the following table.

Table 17. Inventoried Routes Associated with Human Health and Public Safety in the Planning Area

# of Routes	
Routes Associated with Open Mine Shafts	16
Routes with Other Public Safety Concerns	2

Eight of the routes also noted other public safety concerns. These concerns include the potential for military unexploded ordinances (UXO) on BLM-administered lands bordering the U.S. Army Yuma Proving Ground.

Other public safety issues include both operating and closed landfills within the Planning Area that have the potential to cause adverse impacts to public health and safety. A refuse transfer station is also located in north Quartzsite. Illegal dumping continues to be a problem throughout the Planning Area, primarily at the urban-interface with Quartzsite. The Arizona Department of Transportation also noted a safety concern with off-highway vehicle users having to cross Highway 95 when following a trail.

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action): This alternative would designate all routes open without regard to possible conflicts with abandoned mines and other public-safety concerns. Newly constructed illegal routes could cross into unknown abandoned mines, resulting in injuries or other human health and safety concerns.

Alternative B (Access): This alternative includes route monitoring which could help to identify more unknown abandoned mines and safety concerns. On the ground signing efforts would reduce public safety concerns. Public safety concerns would also be lessened as this alternative closes 38% of the roads associated with open mine shafts.

Alternative C (Proposed action): Same as *Alternative B*. Public safety concerns would be lessened as this alternative closes 63% of the roads associated with known open mines.

Alternative D (Resource Protection): Same as *Alternative B*. Public safety concerns would be lessened as this alternative closes 94% of the roads associated with known open mine shafts.

Table 18. Comparison of Closed Routes Associated with Human Health and Public Safety in the Planning Area

Alternative	Routes Closed Associated with Open Mine Shafts (% of Total Routes*)	Routes Closed with Other Public Safety Concerns (% of Total Routes*)
A-No Action	0 (0%)	0 (0%)
B-Access	6 (38%)	0 (0%)
C-Proposed	10 (63%)	0 (0%)
D-Resource Protection	15 (94%)	0 (0%)

* See Table 17 for Total Routes

3.7 LANDS AND REALTY

AFFECTED ENVIRONMENT

BLM lands and realty management program authorizes public use for leases and rights-of-way (ROWs) and/or ROW corridors. Private entities have legal access to authorized lands using existing routes. Examples of road access to authorized infrastructure include the Palo Verde-Devers power line, AT&T fiber optic ROW, and El Paso Natural Gas pipelines, unpaved access routes to the designated Guadalupe Mountain, Stone Cabin, and Cunningham Peak communication sites, etc.

ENVIRONMENTAL CONSEQUENCE

The most common effect that the travel management process will have on lands and realty authorizations is the access that the public will have to routes with lands and realty authorizations such as ROWs, leases, and grants. None of the current authorizations grant the ROW holder an exclusive right to a particular route, but they are guaranteed access for the purposes of utilizing their ROW, and the potential for a conflict with other users exists on these routes. For example, a natural gas company doing routine maintenance on a pipe within their ROW may hinder access on a particular route during this maintenance, therefore limiting another user from using the road without limitations. The potential for user conflict is also complicated by the fact that limiting access on the authorized ROWs to administrative use is implausible within the Planning Area because the routes with authorized ROWs are some of the most heavily used routes within the Planning Area. Limiting these routes to authorized users only would only serve to redirect that use to other routes or would encourage route proliferation. Each alternative approached this problem of user conflict differently in that the amount of open, limited, and closed routes differs under each alternative.

Common to all alternatives: Land use authorizations will not be affected by any of the alternatives as the authorization itself includes certain access guarantees. None of the alternatives would close primary access to private land and individual access issues would be addressed on a case-by-case basis.

Alternative A (No Action): This alternative would keep all routes with authorized ROWs open within public lands, however, there would be no restrictions to the general public on these authorized ROWs. Therefore, the potential for user conflict could be higher under this alternative than any of the action alternatives.

Alternative B (Access): This alternative would designate routes with authorized uses as either open or limited to administrative use. This alternative does not close or limit as many routes or miles as either of the other two action alternatives, so user conflicts could be greater on those open routes with authorized ROWs, however, the potential for route proliferation and concentrated use on open routes would be less.

Alternative C (Proposed action): This alternative would designate routes with authorized uses as either open or limited to administrative use. This alternative closes or limits more routes and miles than *Alternative B* but less than *Alternative D*, so this alternative balances the potential of user conflicts on routes with authorized ROWs with the potential for route proliferation and concentrated use on remaining open roads.

Alternative D (Resource Protection): This alternative would designate routes with authorized uses as either open or limited to administrative use. This alternative closes or limits more routes and miles than both *Alternative B* and *Alternative C*, so this alternative would potentially have less user conflicts on routes with authorized ROWs, but the potential for route proliferation and concentrated use on remaining open roads would be higher under this alternative than any of the other alternatives.

3.8 NATIVE AMERICAN RELIGIOUS CONCERNS

AFFECTED ENVIRONMENT

The Yuma Field Office coordinates and consults with up to 14 different Native American tribes and groups to ensure that BLM actions do not cause undue degradation to Native Americans' sacred places or traditional uses of the public lands. During scoping and consultation for this project, many of the landscapes and cultural resources found within the Planning Area were identified as traditionally important or sacred to Native Americans, however, no specific areas were identified.

ENVIRONMENTAL CONSEQUENCES

Common to all alternatives: The BLM would take no action that would adversely affect areas or sites where Native American Religious Concerns are present without Section 106 and government-to-government consultations as deemed appropriate by Federal guidance and compliance law.

Common to Alternatives B, C & D: Native American religious concerns were carefully considered during route evaluations and all three action alternatives include designations that aim to avoid and/or mitigate impacts to those values.

3.9 RECREATION

AFFECTED ENVIRONMENT

Recreational activities within the Planning Area are varied and diverse but include ATV riding, hunting, hiking, camping, rock-hounding, and vehicle exploring. There is one basic season, which runs from late October through March. Winter activities occur as dispersed recreation where facilities may not be necessary or needed. Travel management is a major element to recreation management. In the summer months, off-highway vehicle use occurs when cooler nighttime temperatures prevail. According to a 2003 report by Arizona State Parks, off-highway vehicle users reported that the top objectives for off-highway vehicle recreation trips in La Paz County were “*sightseeing*” and “*driving back roads*.”¹² During the route evaluation process, the BLM categorized recreational use on each and every route. Table 19 below sums up the total number of miles associated with the most popular activities that occur within the Planning Area.

Table 19. Mileage Associated with Recreation Use within Planning Area

Total Miles Associated By Activity	
4-Wheel Drive	1,703.81
ATV	1,702.70
Hunting	1,327.34
Hiking	339.86
Camping	858.07
Rock Hounding	1,167.63
Vehicle Exploring	1,631.60

The 2010 Yuma RMP designates recreational resources or areas in terms of either the *La Posa Special Recreation Management Area* (SRMA) or part of *Extensive Recreation Management Area* (ERMA)¹³. The SRMA is made up of six Recreation Management Zones (RMZs). These zones provide smaller areas that have different or unique planning needs. The Intensive Day Use RMZ is closed to camping while the Intensive Camping RMZ has six areas for camping. This includes one long-term visitor area or camping area. These management prescriptions were established in 1983, to control dispersed camping around Quartzsite. The camping areas are considered managed sites and are not part of the Plan.

The 2010 Yuma RMP also describes six Prescribed Recreation Settings (PRSs) within the Yuma Field Office. Five of these are present in the Planning Area (the Primitive PRS is only found in

¹² The Economic Importance of Off Highway Vehicle Recreation to Arizona., Arizona State Parks, 2003a

¹³ Yuma Field Office Record of Decision and Approved Resource Management Plan, map 2-10.

Wilderness areas and is excluded from the Plan). The PRSs found in the Planning Area include the Semi-Primitive PRS, the Rural Natural PRS, the Rural Developed PRS, the Suburban PRS, and the Urban PRS. Each PRS describes a unique set of recreational experiences and opportunities the Yuma Field Office would aim to provide within SRMAs and RMZs. A brief description of each PRS present within the Planning Area is presented below.

Semi-Primitive PRS: This setting provides widespread and very prevalent opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are seldom encountered; opportunity to experience a natural ecosystem with little human imprint is important; a sense of challenge, adventure, risk, and self-reliance is important; solitude and lack of contact with other visitors, managers, and facilities is important; the recreation experiences tend to be more resource-based; a sense of independence, freedom, tranquility, relaxation, nature appreciation and wonderment, testing skills, and stewardship is typical; area provides opportunities for the more adventure-based enthusiasts. Overnight visits are typically car and tent camping far from modern conveniences and facilities. Knowledge of desert survival skills is critical to visitor safety. Topography, an absence of existing roads, or resource protection measures may limit motorized access.

Rural Natural PRS: This setting provides prevalent opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are occasional and infrequent; socialization with others is expected and tolerated; opportunity to relieve stress and to get away from built environment is important; a high sense of safety, security, comfort and convenience is not important nor expected; a sense of independence and freedom with a moderate level of management presence is important; moments of solitude, tranquility, and nature appreciation are important; experiences tend to be more resource-dependent, although may be diverse, ranging from relaxation and contemplation to socialization, to physical exertion and challenge; area is typically attractive to extended weekend visitors using recreation vehicles, tents, or rustic cabins.

Rural Developed PRS: This setting provides occasional or periodic opportunities to see, hear, or smell the natural resources because of the common and frequent level of development, human activity, or natural resource modification; opportunity to experience brief periods of solitude and change from everyday sights and sounds is important; socialization within and outside one's group is typical and the presence of other visitors is expected; opportunity to relieve stress and to alter everyday routines is important; a moderate level of comfort and convenience is important; a sense of safety and security is important; the array of recreation activities may be diverse, ranging from relaxation and contemplation to physical exertion and challenge; area is typically attractive for day-use and weekend visits from regional metropolitan areas and smaller nearby communities.

Suburban PRS: This setting provides limited or little opportunity to see, hear, or smell the natural resources because of the widespread and very prevalent level of development, human activity, or natural resource modification; watching and meeting other visitors is expected and desired; opportunity to briefly relieve stress and to alter everyday routine is important; families are common; a high sense of safety, security, comfort, and convenience is central and dominant; the mix of recreation activities may be diverse, ranging from relaxation and contemplation to physical exertion, thrills, excitement, and challenge; learning about the natural and cultural history of the area is important to some; area is popular with local residents or long-term winter visitors.

Urban PRS: This setting provides very limited opportunities to see, hear, and smell the natural resources because of the extensive level of development, human activity, and natural resource modification. Watching and meeting other visitors is expected and desired; large group activities are popular; opportunity to briefly relieve stress and to alter everyday routines is important; socializing with family and friends is important; large groups and families are common; a high sense of safety, security, comfort, and convenience is central and dominant; the mix of recreation activities may be diverse, ranging from those of relaxation and contemplation to those of physical exertion, thrills, excitement and challenge. The setting is often attractive to short-term visitors, tours, and school groups; it may serve as a staging area for visitors traveling on to areas with non-urban recreation settings.

Table 20. Routes Associated with Prescribed Recreational Settings in the Planning Area

Prescribed Recreational Setting Type	# of Routes
Semi-Primitive	166
Rural Natural	1,354
Rural Developed	459
Suburban	9
Urban	51

ENVIRONMENTAL CONSEQUENCES

Common to multiple alternatives: Alternatives B, C, and D would clearly define networks and footprint of recreational activities can be limited and allowing clear separations between human and natural settings.

Alternative A (No Action): This alternative would continue to keep all primitive roads and trails. However, this alternative would not address the 2010 Yuma RMP's mandate to provide a unique set of recreational experiences and opportunities within each PRS. In particular, the opportunities for recreational opportunities that involve solitude and the opportunity to see, smell, and hear natural resources would be diminished under this alternative, especially within the Semi-Primitive PRS, the Rural Natural PRS, and the Rural Developed PRS. The Suburban

PRS and the Urban PRS would be enhanced under this alternative as open routes promote the kinds of opportunities and experiences that are prescribed in these areas.

The No Action also has the highest potential for long-term impacts, and over time creates the potential for adverse impacts on many of the affected natural resources covered in the Plan EA. Over the life of this plan, the growth of the Quartzsite area would place additional stress from off-highway vehicle travel within the Planning Area. This increased use could impact the landscape and the resources which draw many users to the Planning Area. These important impacts not only affect recreation and transportation, but also the socioeconomic value of the area. Without an active and documented TMA, these impacts to primitive roads and trails will continue unchecked. Both population growth and increasing seasonal travel into the Planning Area is expected to place more physical demand on the existing route network and with the potential to increase user conflicts.

Alternative B (Access): This alternative is intended to offer access while still providing appropriate management (i.e., protection) to identified natural resources (via individual route surveys). As shown in Table 21, 73% of the mileage associated with ATV and 4-wheel drive use would remain open under this alternative. Similarly, 81% of the mileage associated with hunting and 93% of the mileage associated with hiking and 85% of the mileage associated with camping would remain open. Finally, 82% of the mileage associated with rock hounding and 73% of the mileage associated with vehicle exploring would remain open.

This alternative also addresses the 2010 Yuma RMP's mandate to provide a unique set of recreational experiences and opportunities within each PRS, however, like Alternative A, the settings associated with the Semi-Primitive, Rural Natural, and Rural Developed PRSs would be less adequately addressed than in Alternative C or D. The Suburban PRS and the Urban PRS would be better addressed under this alternative than the other action alternatives. As shown in Table 22, 38% of routes within the Semi-Primitive PRS would be closed, 44% of the routes in the Rural Natural PRS would be closed, 41% of the routes in the Rural Developed PRS would be closed, 0% of the roads in the Suburban PRS would be closed, and 51% of the roads in the Urban PRS would be closed under this alternative.

Alternative C (Proposed action): This alternative is intended to balance access and natural resource concerns within the Planning Area. As shown in Table 21, 57% of the mileage associated with ATV use and 58% of the mileage associated with 4-wheel drive use is expected to remain open under this alternative. Similarly, 67% of the mileage associated with hunting, 87% of the mileage associated with hiking, and 76% of the mileage associated with camping is expected to remain open. Finally, 69% of the mileage associated with rock hounding and 58% of the mileage associated with vehicle exploring is expected to remain open.

This alternative also addresses the 2010 Yuma RMP's mandate to provide a unique set of recreational experiences and opportunities within each PRS. This alternative most adequately represents the BLM's efforts to provide the recreational experiences and opportunities outlined in the 2010 Yuma RMP. As shown in Table 22, 54% of routes within the Semi-Primitive PRS

would be closed, 64% of the routes in the Rural Natural PRS would be closed, 55% of the routes in the Rural Developed PRS would be closed, 0% of the roads in the Suburban PRS would be closed, and 59% of the roads in the Urban PRS would be closed under this alternative.

Alternative D (Resource Protection): This alternative is intended to maximize natural resource protection concerns while still allowing recreational access within the Planning Area. As shown in Table 21, 33% of the mileage associated with ATV use and 33% of the mileage associated with 4-wheel drive use could remain open under this alternative. Similarly, 40% of the mileage associated with hunting, 53% of the mileage associated with hiking, and 47% of the mileage associated with camping could remain open. Finally, 42% of the mileage associated with rock hounding and 33% of the mileage associated with vehicle exploring could remain open.

This alternative also addresses the 2010 Yuma RMP's mandate to provide a unique set of recreational experiences and opportunities within each PRS, however, the settings associated with the Suburban PRS and the Urban PRS are less adequately addressed than in any of the other action alternatives. As shown in Table 22, 77% of routes within the Semi-Primitive PRS would be closed, 82% of the routes in the Rural Natural PRS would be closed, 66% of the routes in the Rural Developed PRS would be closed, 33% of the roads in the Suburban PRS would be closed, and 73% of the roads in the Urban PRS would be closed under this alternative.

Table 21. Comparison of Open Route Mileage Associated with Recreational Use in the Planning Area

	Alternative B		Alternative C		Alternative D	
	Mileage Open	% of Total Mileage Left Open	Mileage Open	% of Total Mileage Left Open	Mileage Open	% of Total Mileage Left Open
4-Wheel Drive	1,241.34	73%	980.50	58%	568.38	33%
ATV	1,234.55	73%	973.71	57%	560.28	33%
Hunting	1,070.28	81%	889.13	67%	526.08	40%
Hiking	339.34	93%	295.82	87%	179.19	53%
Camping	728.38	85%	649.96	76%	406.24	47%
Rock Hounding	952.21	82%	800.88	69%	494.16	42%
Vehicle Exploring	1,193.79	73%	950.65	58%	541.62	33%

* See Table 20 for Total Mileage

Table 22. Comparison of Closed Routes Associated with Prescribed Recreational Settings in the Planning Area

Alternative	Routes Closed within Semi-Primitive PRS (% of Total Routes*)	Routes Closed within Rural Natural PRS (% of Total Routes*)	Routes Closed within Rural Developed PRS (% of Total Routes*)	Routes Closed within Suburban PRS (% of Total Routes*)	Routes Closed within Urban PRS (% of Total Routes*)
A-No Action	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
B-Access	63 (38%)	595 (44%)	189 (41%)	0 (0%)	26 (51%)
C-Proposed	89 (54%)	861 (64%)	254 (55%)	0 (0%)	30 (59%)
D-Resource Protection	128 (77%)	1112 (82%)	305 (66%)	3 (33%)	37 (73%)

* See Table 20 for Total Routes

3.10 SOCIOECONOMIC ISSUES AND CONCERNS

AFFECTED ENVIRONMENT

The 2010 Yuma RMP contains a thorough assessment of the social and economic conditions prevalent in the Yuma Field Office jurisdiction at the time of publication. More recent social and economic data do not differ significantly from assessments made in the 2010 Yuma RMP, which are therefore considered a sound and adequate baseline on which to assess the potential impacts of the proposed La Posa TMP.

The Social and Economic Study Area and Affected Communities

The public lands included in this Planning Area lie in Yuma and La Paz Counties, in the western portions of AZ. The study area for assessment of social and economic effects initially included Yuma and La Paz Counties in AZ, as well as parts of eastern Imperial and Riverside Counties in CA, immediately adjacent to the Colorado River. In addition, the Colorado River Indian Tribes reservation, the Cocopah Indian Nation reservation, and the Quechan Indian Tribe reservation were all considered as part of the initial study area for the social, economic, and environmental justice analyses.

The populations most directly affected by the proposed La Posa TMP are primarily in La Paz and Yuma Counties, AZ. The assessments of social and economic effects proposed in the Planning Area are for travel routes and lands entirely within AZ, and all travel management decisions lie entirely in AZ. Therefore, the county level demographic and economic data used as the basis for this analysis is limited to La Paz and Yuma Counties, AZ.

The permanent population of the study area has been relatively stable, as can be seen from Table 23. There has been a substantial increase in the population of Yuma County from 2000-2013, which can be partially attributed to an increase in people of retirement age relocating to the area (ACS, <http://www.census.gov/programs-surveys/acs/> 2015). The permanent populations of both counties remain relatively low, in comparison with larger metropolitan areas such as Tucson and Phoenix. These low population levels contribute to the rural nature of most of the study area, which is characterized by large expanses of open space and undeveloped landscapes.

Table 23. Study Area Population Change, 2000-2013*

Counties	2000 Population	2013 Population *	Change in Population (%) 2000-2013*
Yuma County, AZ	160, 026	199,026	39,000 (24.4%)
La Paz County, AZ	19,715	20,408	693 (3.5%)

* The data in this table are calculated by American Community Survey (ACS) using annual surveys conducted during 2009-2013 and are representative of average characteristics during this period

The nearest permanent population center within the Planning Area is the Town of Quartzsite, AZ, located near the junction of US Interstate 10 and AZ 95. This small town (2013 population

ca. 3,650) markets itself as an outdoor recreation “mecca”, and a center for recreational vehicle (RV) users and other visitors. The website for the town proclaims:

“The Sonoran Desert setting, just 879 feet above sea level, holds its own mystique. The surrounding mountains add to the overall appeal, creating a scenic environment that is known for pristine desert views and glorious sunsets.”
(<http://www.ci.quartzsite.az.us/>)

The primary economic drivers in the study area are recreation, tourism, and agriculture. La Paz and Yuma Counties offer a wide variety of recreational opportunities, from boating and fishing on the Colorado River to hiking and exploring isolated and rugged desert mountain ranges. The public lands administered by the BLM provide many of the recreational and tourism opportunities in the study area. Table 24 illustrates the substantial contribution recreation and tourism related sectors have made to the study area economy since 2000.

Table 24. La Posa TMP Socioeconomic Study Area % Earnings by Industry, 2001-2013 (Thousands of 2014 \$\$)

Percent of Total*	2001	2005	2010	2013	% Change 2010-2013
Labor Earnings					7.20%
Non-services related	26.10%	26.40%	17.70%	18.10%	9.20%
Farm	3.10%	2.80%	2.30%	2.50%	16.50%
Forestry, fishing, & ag. services	1.70%	1.10%	1.30%	1.10%	-6.40%
Mining (including fossil fuels)	0.10%	0.20%	0.20%	0.30%	32.10%
Construction	12.10%	14.10%	7.20%	7.80%	16.40%
Manufacturing	9.00%	8.30%	6.80%	6.40%	1.30%
Services related	37.20%	41.00%	48.20%	53.90%	19.90%
Utilities	0.50%	0.60%	0.60%	0.60%	-4.20%
Wholesale trade	3.70%	3.60%	3.80%	4.30%	21.00%
Retail trade	9.30%	9.40%	9.10%	9.00%	6.50%
Transportation and warehousing	3.10%	2.90%	3.50%	3.80%	14.30%
Information	1.40%	1.30%	1.90%	1.10%	-35.70%
Finance and insurance	2.60%	2.80%	2.60%	2.70%	12.00%
Real estate and rental and leasing	2.70%	2.40%	1.70%	3.10%	95.80%
Professional/ technical services	3.60%	4.00%	4.10%	4.10%	7.50%
Management of companies and enterprises	0.80%	0.80%	0.50%	0.70%	47.60%
Administrative and waste services	3.50%	3.80%	4.10%	4.20%	9.10%
Educational services	0.40%	0.50%	0.70%	0.70%	2.30%
Health care and social assistance	8.20%	7.90%	9.70%	10.60%	16.70%
Arts, entertainment, and recreation	1.00%	0.90%	1.10%	1.00%	1.90%
Accommodation and food services	4.00%	4.00%	4.00%	4.00%	6.80%
Other services, except public administration	5.20%	5.10%	5.00%	5.00%	7.40%
Government	24.10%	23.60%	29.90%	27.10%	-2.80%

(Tables adapted from Economic Profile System 2015, at <http://headwaterseconomics.org/tools/economic-profile-system>)

Recreation and tourism are not classified or measured as standard industrial categories, but are considered as components of several other employment sectors such as recreation, retail sales, and some service industries. This means employment and income data are not specifically collected for this sector in either the US Census or the American Community Survey (ACS). Components of recreation and tourism activities are instead captured in other industrial sectors, primarily the retail sales and services sectors. The contribution of travel and tourism to a local economy and employment may however, be generally assessed by assigning all or a portion of the economic impacts in other sectors to visitors. This provides a general indication of the relative importance of travel and tourism, but may sometimes overstate the total contribution because these totals also include employment supported by local spending in these sectors.

BLM AZ recognizes the importance of tourism and recreation in the economies of the study area, and also recognizes the importance of the public lands experience for visitors to the study area. The most prominent example of this recognition may be the long term visitor area BLM has established immediately to the south and east of the town of Quartzsite. This long term visitor area has become a destination for cold season/winter visitors. The long term visitor area provides RV users a large, open landscape in which to set up “primitive” camps (i.e., without amenities such as water or power) and to stay at these camps for weeks or months for a fee. The users of the long term visitor area have immediate access to the public lands which surround the long term visitor area, and use of off- highway vehicles as transportation within the long term visitor area and for recreation is widespread. Visitors using the planning area include winter visitors who reside in AZ from October to March and live in self-contained mobile camping units, weekend visitors from southern CA and the greater Phoenix metropolitan area, and local residents who visit for day-use activities on weekends and weekday evenings.

Quartzsite’s population peaks during the winter visitor season in January, with some estimates going as high as 250,000 users in the Quartzsite/long term visitor area during the height of occupation. Winter visitors are a major contributor to La Paz County and the Town of Quartzsite’s economy (<https://tourism.az.gov/research-statistics/visitation-profiles-2015>; DHHS 2006). The retail trade and services sectors benefit substantially from winter visitors between October and March. Nine major gem and mineral shows and 15 swap meets in the Quartzsite area are popular attractions, with estimated annual attendance in excess of 1.5 million people.

The City of Yuma, south of the La Posa TMP, is the largest permanent community in the area, with a population approaching 100,000 residents. Yuma offers a variety of goods, services, and recreational activities that are not available in the smaller communities nearer the La Posa TMP area. Yuma also has the largest number and concentration of hotels and restaurants in the study area, making it a preferred destination for people visiting the area who are not RV users. The City of Yuma also has a substantial winter visitor population, who take advantage of more fixed RV parks in the area, as well as seasonal housing options, such as rentals.

The BLM Mission, Travel Management Planning, and Non-Market Values

The BLM’s multiple-use mission, set forth in the Federal Land Policy and Management Act of 1976 (FLPMA), mandates that public land resources are managed for a variety of uses, such as

energy development, livestock grazing, and recreation, while protecting a wide array of natural, cultural, and historical resources. The BLM must routinely balance resource protection with resource use, and discern management actions that can best achieve desired resource conditions.

One of the BLM's greatest management challenges is providing reasonable and varied transportation routes for access to the public lands, and also providing areas for a wide variety of both motorized and non-motorized recreational activities. The various landscapes, user interests, equipment options, weather conditions, transportation infrastructure, and resource constraints for a given area must all be considered during development of a Travel Management Plan.

Prominent among the travel management issues the BLM faces is the complex challenge in managing motorized activities on the public lands. The combined effect of increasing numbers of users and the increasing popularity of off-highway vehicles for a variety of purposes, has generated increased both social conflicts and resource impacts on the public lands related to motorized recreation and the impact on other recreation activities and resource uses.

In a study of off-highway vehicle use by AZ State Parks (2003), off-highway vehicle recreation contributed \$49.7 million annually to the La Paz County economy, including \$24.6 million in off-highway vehicle-related retail sales and \$19.5 million dollars in trip expenditures for off-highway vehicle recreation. This economic activity supported 459 jobs resulting in approximately \$8.3 million in household income for county residents and generated \$1.9 million in state tax revenues.¹⁴ The study only considered AZ's state residents' economic contributions. A majority of the Planning Areas off-highway vehicle users are assumed to be out-of-state winter visitors. Therefore, these economic impacts from off-highway vehicle recreation in La Paz County were likely understated in the 2003 study. Anecdotal evidence and annual observations by BLM employees indicate that off-highway vehicle use is increasing on the public lands in general, and is observed to be a major recreational activity in the La Posa TMP area.

It is useful to differentiate off-highway vehicle use as its own recreational activity, and off-highway vehicle use that is incidental to pursuit of other recreational activities. There is a substantial off-highway vehicle user segment that enjoys riding off-highway vehicles as a recreational pursuit in and of itself, often enjoyed on particularly steep, rough, or open courses where users can test the capabilities of themselves and their machines.

Off-highway vehicles are used also commonly used as transportation when pursuing other recreational activities on the public lands. The foregoing analysis of recreational activities in this EA notes that scenic and cultural viewing opportunities, rock-hounding, hiking, mountain biking, equestrian use, and wildlife viewing are also preferred recreational activities in the study area. The quality of many of these recreational activities depends on cultural and natural resources that are not damaged, defaced, or depleted by overuse or inappropriate uses.

¹⁴ *The Economic Importance of Off Highway Vehicle Recreation to Arizona.*, Arizona State Parks, 2003

The BLM does not contest that tourism and recreational activities are major contributors to the economies of the study area. BLM also recognizes that the cultural and natural resources of the public lands in the study area are an important component of what draws visitors to the area. The value perceived by users and visitors is difficult to quantify, and yet is a real and important part of why people visit and use the public lands in the study area.

These kinds of values are generally referred to as “non-market values”. The BLM considers non-market values to be the benefits individuals attribute to experiences of the environment, uses of natural resources, or the existence of particular ecological conditions that do not involve market transactions, and therefore lack prices. Examples include the perceived benefits from hiking in a wilderness, fishing for subsistence rather than commercial purposes, and appreciating the scenic values of undisturbed landscapes and vistas. People who value natural areas for any reasons are realizing the benefit of a non-market value. BLM Instruction Memorandum No. 2013-131 provides guidance on how to incorporate non-market values in planning.

One of the objectives of the La Posa TMP is maintaining and improving the condition of many of the cultural and natural resources qualities of the study area. Avoiding and/or mitigating further disturbance along the existing route network and establishing a travel management plan to maintain resource conditions would sustain and possibly enhance visitor and user experiences on the public lands. For example, closure of some ephemeral routes might reduce erosion, allowing vegetation to re-establish more quickly, which in turn would provide more appealing landscapes for viewing and camping, as well as potentially increasing wildlife habitat, leading to more wildlife viewing and/or hunting opportunities.

As mentioned above in Section 3.9 (Recreation) five of the six PRS’s are included within the Planning EA analysis and La Posa TMP. Although repeated from the Recreation Section, segments of the PRS’s are listed again so the relationship between the PRS and the non-market values can be clearly identified.

<u>PRS</u>	<u>Non-market Value Association</u>
Semi-Primitive:	One can experience a natural ecosystem with little human imprint. Visitors are afforded a sense of challenge, adventure, and risk, while experiencing solitude and infrequent contact with other visitors.
Rural Natural:	Users are afforded an opportunity to relieve stress. A sense of independence and freedom with moments of solitude, tranquility, and nature appreciation are important. Experiences tend to be more resource-dependent, although somewhat diverse, ranging from relaxation and contemplation to socialization.

PRS

Non-market Value Association

Rural Developed:	Brief periods of solitude and change from everyday sights and sounds. Socialization within and outside one's group is typical and the presence of other visitors is expected. Although a sense of safety and security is important, the array of recreation activities may be diverse, ranging from relaxation to physical exertion and challenge.
Suburban:	Watching and meeting other visitors is expected and desired. Families are common along with a high sense of safety, security, comfort, and convenience. The mix of recreation activities may be diverse, ranging from relaxation to physical exertion, and learning about the natural and cultural history of the area.
Urban:	Socializing with large groups, families, and friends is important. The opportunity is desired to briefly relieve stress and to alter everyday routines. The setting is often attractive to short-term visitors, tours, and school groups; it may serve as a staging area for visitors traveling on to areas with non-urban recreation settings.

Table 22 (Repeated). Comparison of Closed Routes Associated with Prescribed Recreational Settings in the Planning Area

Alternative	Routes Closed within Semi-Primitive PRS (% of Total Routes*)	Routes Closed within Rural Natural PRS (% of Total Routes*)	Routes Closed within Rural Developed PRS (% of Total Routes*)	Routes Closed within Suburban PRS (% of Total Routes*)	Routes Closed within Urban PRS (% of Total Routes*)
A-No Action	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
B-Access	63 (38%)	595 (44%)	189 (41%)	0 (0%)	26 (51%)
C-Proposed	89 (54%)	861 (64%)	254 (55%)	0 (0%)	30 (59%)
D-Resource Protection	128 (77%)	1112 (82%)	305 (66%)	3 (33%)	37 (73%)

* See Table 20 for Total Routes

SOCIAL AND ECONOMIC EFFECTS AND CONSEQUENCES

Common to multiple alternatives: Alternatives B, C, and D will provide clearly defined route systems; which would make it easier for the local community to market the “trail system” as a benefit to both visitors and new long-term residents. The BLM assumes the economic value of access to the public lands is not only in the quantity of routes available but also in the quality of the experiences provided.

Alternative A (No Action): All inventoried routes are expected to remain open without closures or other travel management actions to reduce impacts to natural resources. No changes in travel management to sustain or enhance the natural and cultural resources of the study area are expected to occur. Adverse impacts to natural resources are expected to continue at the same rates as they have been occurring. Subsequent consequences over time could result in adverse impacts to non-market values thus resulting in socio-economic losses to the surrounding communities from diminishing travel and tourism. Unabated resource degradation could eventually result in an unrecoverable¹⁵ loss of non-market values, with subsequent reductions in recreational activities associated with those values.

Alternative B (Access): This alternative provides a clearly defined travel network, which in turn provides the public the ability to navigate the approved transportation network to meet individual objectives as stated in the La Posa TMP. This alternative closes the fewest routes, and could allow current adverse impacts occurring to the natural and cultural resources of the area to continue to a greater extent than Alternative C and D. Similar to the No Action Alternative, the following activities could still be available to the public: four wheel drive touring, ATV and UTV exploration, scenic and cultural viewing opportunities, rock-hounding, hiking, mountain biking, motorcycle use, equestrian use, and wildlife viewing. Maps and trail markers may serve as a marketing tool for socio-economic benefits.

Alternative C (Proposed Action): This alternative provides a clearly defined travel network, which in turn provides the public the ability to navigate the approved transportation network to meet individual objectives as stated in the La Posa TMP. Similar to the No Action Alternative, the following activities will still be available to the public: four wheel drive touring, ATV and UTV exploration, scenic and cultural viewing opportunities, rock-hounding, hiking, mountain biking, motorcycle use, equestrian use, and wildlife viewing. The defined trail system may be used by local communities as a unique resource to target marketing to specific types of visitors to the area. This alternative was developed to provide a balance between maintaining public access to the natural and cultural resources in the Planning Area while allowing for management of those resources for sustainability of both market and non-market values.

Alternative D (Resource Protection): This alternative closes the most routes relative to Alternatives A, B, and C, with the objective to provide the greatest level of management and beneficial impacts to cultural and natural resources on the public lands. Alternative D may limit the visitor's opportunity to experience a full range of what the backcountry has to offer. This alternative is projected to have the greatest adverse impact on local social and economic conditions, due to the reduction of open routes and consequent limitations on public access to certain areas and resources in the study area.

¹⁵ Unrecoverable losses on the landscape: Example: Soils eroded of all topsoil and left to inert subsoils may not have the capacity to support vegetation, resulting in the inability to attract wildlife desired by hunters.

Adverse cumulative impacts could continue at current and possibly accelerated rates to cultural and natural resources as population growth expands, subsequently resulting over the long-term in less winter travelers desiring to explore the Planning Area.

3.11 SOILS

AFFECTED ENVIRONMENT

The entire Planning Area is composed of Aridisols, a soil order of the U.S. Department of Agriculture's Natural Resources Conservation Service Soil Classification System. Aridisols are commonly found in dry environments. Other characteristics include that they are low in organic matter, have high contents of silt and clay, and are often high in lime, sodium, and other salts. Water deficiency is a dominant characteristic of Aridisols. Through time, subsoil horizons can become cemented by the combination of limited leaching and weathering of carbonates, gypsum, and/or silica in Aridisols. Subsequent development of salts on the surface can result in salinization, making it very difficult to grow many types of vegetation. Crops normally cannot be grown in these soils without irrigation.

Sensitive soils occur throughout the Planning Area and include desert pavement, cryptobiotic soil crusts, and stabilized sand dunes. Sensitive soils are significant because of their susceptibility to erosion and their roles in supporting plants, wildlife, and watersheds. Disturbances to sensitive soils in the arid Southwest generally last a long time. Estimated recovery times can range from a few decades to more than a century, depending on the nature and intensity of the disturbance and soil properties (2010 Yuma RMP source -Belnap et al. 2001; Weinstein 2004). During the route evaluation process, routes with known soil erosion concerns were identified and the miles associated with these routes are presented in Table 25.

Table 25. Mileage Associated with Soil Concerns in the Planning Area

General Soil Concern	# of Total Miles
Mileage in Highly Erosive Soils	65.55
Mileage with Known Soil Erosion Concerns	1,032.33
Mileage on Desert Pavement	929.41

ENVIRONMENTAL CONSEQUENCES

Common to all Alternatives

A problem common to Aridisols and routes in all alternatives is their susceptibility to erosion by water and wind. Increased travel on routes left open may result in higher levels of dust emissions (See Section 3.1). Closed routes are expected to experience varying levels of erosion (i.e., transport via gullying, etc.) as rain and storm events lessen the compaction of the routes with time.

Alternative A (No Action): This alternative would not close or restrict use on any of the routes, so routes currently experiencing erosion concerns would continue to be subject to that erosion.

Similarly none of the routes currently on desert pavement would be closed to allow for reclamation.

Alternative B (Access): This alternative would increase the need for management by establishing a travel network. This alternative would lower potential direct impacts to soils on those routes being closed. Under this alternative, 4% of the mileage on routes in highly erosive soils would be closed, 23% of the mileage on routes with known soil erosion concerns would be closed, and 28% of the mileage on routes on desert pavement would be closed. Routes left opened can be subjected to additional erosion as travel on them is expected to increase from the routes that are closed.

Alternative C (Proposed action): This alternative would further increase management by establishing a travel network. This alternative would lower potential direct impacts to soils on those routes being closed. Under this alternative, 13% of the mileage on routes in highly erosive soils would be closed, 34% of the mileage on routes with known soil erosion concerns would be closed, and 39% of the mileage on routes on desert pavement would be closed. Routes left opened may be subjected to additional erosion as travel on them is expected to increase from the routes that are closed.

Alternative D (Resource Protection): This alternative would increase management by establishing a travel network, and along with reducing routes, would lower potential direct impacts to soils; however, the direct impacts to soils on remaining open routes would likely increase due to the additional traffic directed to these open routes. Under this alternative, 15% of the mileage on routes in highly erosive soils would be closed, 51% of the mileage on routes with known soil erosion concerns would be closed, and 53% of the mileage on routes on desert pavement would be closed. Routes left opened are expected to be subjected to additional erosion as travel on them is expected to increase from the routes that are closed.

Cumulative Impacts: With consideration of the climate change prediction that storms could become more intense, erosion along routes is expected to increase. Increased travel from population growth and/or visitor use could also generate more erosion and/or degrade route conditions (i.e., wash-boarding) along the route network.

Environmental Assessments and/or Environmental Impact Statements being developed for the Reasonably Foreseeable Activities noted at the beginning of this chapter are expected to include a full analysis of the adverse impacts for those proposed actions.

Table 26. Comparison of Closed Mileage Associated with Soils Concerns in the Planning Area

Alternative	Mileage Closed In Highly Erosive Soils (% of Total Mileages*)	Mileage Closed with Known Soil Erosion Concerns (% of Total Mileages*)	Mileage Closed on Desert Pavement (% of Total Mileages*)
A-No Action	0 (0%)	0 (0%)	0 (0%)
B-Access	2.53 (4%)	234.01 (23%)	256.7 (28%)
C-Proposed	8.41 (13%)	350.87 (34%)	358.61 (39%)
D-Resource Protection	9.95 (15%)	530.24 (51%)	497.18 (53%)

* See Table 25 for Total Mileage

3.12 TRAVEL/TRANSPORTATION AND ACCESS

AFFECTED ENVIRONMENT

The existing route system offers a range of experiences for both motorized and non-motorized users alike and provides access for a multitude of purposes as addressed in this EA.

ENVIRONMENTAL CONSEQUENCES

Common to multiple alternatives: Alternatives B, C, and D are the marking of the network, monitoring of routes and minor maintenance of routes to assure travel stays on routes. These measures will help limit route proliferation and provide defined network that will improve opportunity for users to meet their desired experiences.

Alternative A (No Action): The *No Action Alternative (A)* represents 100 percent of the routes from the 2005 aerial photographs for the 2010 Yuma RMP. Under the *No Action Alternative* these routes would remain open to motorized use. Route proliferation continues under this alternative and is difficult to manage because it does not include signage for users to follow.

Alternative B (Access): This alternative accommodates extensive off-highway vehicle use throughout the Planning Area while limiting access to certain cultural and historic sites. It is also the most un-restrictive of off-highway vehicle use alternative, with the exception of the *No Action Alternative*. Routes within or leading to areas or sites of increased resource concerns were designated as limited or closed to access. Law enforcement would have the support (i.e., signage and maps, etc.) necessary to manage the La Posa TMP.

Alternative C (Proposed action): This alternative establishes a comprehensive route system designed to create loop trails and maximize recreation by allowing for an array of outdoor opportunities for motorized and non-motorized users, while protecting cultural and natural resources. To meet these design goals, some routes identified during route evaluation are designated as closed or are reserved for administrative or permitted access only. Law enforcement would have the support (i.e., signage and maps, etc.) necessary to manage the La Posa TMP.

Alternative D (Resource Protection): This alternative reduces motorized recreation throughout the Planning Area to improve management and protection of cultural and historic sites, and natural resources. It accommodates access for off-highway vehicle use as well as management of resource, cultural, and historic features. *Alternative D* is the most restrictive alternative as it relates to access. Law enforcement would have the support (i.e., signage and maps, etc.) necessary to manage the La Posa TMP.

Cumulative Impacts to Alternatives B, C and D: These three alternatives share basic management actions when considering the long-term, direct, indirect, and cumulative impacts. The similarities are in nature except in the quantity of miles and the types of designated routes. Designation of a transportation network of routes “open”, “closed”, and “limited” is expected to

address public and administrative access needs, protect resources, promote public safety, and minimize conflicts among the various uses of public lands. Implementation of the La Posa TMP/Plan EA under any of three alternatives is expected to minimize degradation of natural resources throughout routes that are closed. If not addressed as recommended, long-term adverse impacts could occur in areas where resource specialists and other agency and public have identified concerns in Planning Area desert ecosystem.

The overall expected effect of implementing the La Posa TMP/Plan EA is for a higher quality of wildlife habitat, higher quality of visual resources, and higher quality for off-highway vehicle opportunities for recreationists. Motorized off-highway vehicle use and other forms of outdoor recreation are expected to continue increasing with the population, and may contribute to user conflicts in some recreation areas. As the La Posa TMP/Plan EA is implemented, there are expectations for limitations of off-highway vehicles and increased needs for enforcement of the designations. Cumulatively, this is expected to increase the need for managements' presence throughout the Planning Area in the form of signs, markers, law enforcement, staff and volunteer monitoring. Identifying the network through this plan will allow County, City and State agencies to work to assure access is provided during community planning.

3.13 VEGETATION AND SPECIAL STATUS PLANTS

AFFECTED ENVIRONMENT

Vegetation in the Planning Area belongs to the Lower Colorado River Valley Subdivision of the Sonoran Desert. The primary plant community is desert scrub. The type, amount, and importance of vegetation present varies according to the different landscapes found across the Planning Area. The northern portion of the Planning Area includes stabilized dune complexes covered by big galleta grass, a mix of plant species unique to sand dunes, and invasive Sahara mustard which grows during rainy winter seasons. Desert mountains are covered with mixed desert scrub including creosote bush, palo verde trees, and saguaro cactus. Valley floors are considered either desert pavement, which is largely devoid of vegetation, or xeroriparian washes, which are composed of a mix of desert trees and shrubs including ironwood, palo verde, catclaw acacia, mesquite, and a mix of desert shrubs. Succession, survival rate, and plant growth in, desert washes are all aided by seasonal rainfall that collects in these drainages. During the route designation process, routes associated with desert washes were identified and are presented in the table below.

Table 27. Inventoried Routes Associated with Washes in the Planning Area

	# of Routes
Routes within 250 m of a Wash	566
Routes in a Wash	272
Routes that Cross a Wash	952
Routes that Lead to a Wash	252

Vegetation in the Planning Area is dependent on summer thunderstorms which are generally associated with moisture flowing north from the Gulf of Mexico and by gentle winter rains originating from the Pacific Coast. The extreme aridity characterizing the region causes slow vegetation succession, low plant survival rates, and slow perennial plant growth. The relative sensitivity of vegetation within the Planning Area, coupled with Quartzsite's high rates of winter visitation, has prompted the BLM to establish some management measures meant to protect vegetation. Within the Planning Area:

- 1) Firewood collection is prohibited across 133,200 acres of public land and
- 2) The collection of down, dead, and detached wood for personal use is allowed on the remaining 251,400 acres of public land.

Within the project area, certain invasive and noxious weed species are present that typically out-compete desirable native plants. Invasive plant species present in the Planning Area include Bermuda grass (*Cynodon dactylon*), Sahara mustard (*Brassica tournefortii*) and buffelgrass (*Pennisetum ciliare*). Bermuda grass and buffelgrass are perennial species primarily located along roadways. During winter rainy seasons Sahara mustard is prolific in sand dunes, along roadsides, and in sandy soils. Routes associated with areas containing invasive non-native plants, primarily Sahara mustard, are presented in the table below.

Table 28. Inventoried Routes Associated with Vegetation and Special Status Plants in the Planning Area

	# of Routes
Routes in Other Special Status Plant Species Habitat	125
Routes within Areas with Invasive Non-native Plant Species	1,194

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action): This alternative is expected to keep all primitive roads and trails “open” without regard to possible conflicts with vegetation and special status plant species. Management of the routes is expected to be left to future site specific project plans. This alternative may not have the beneficial impact of controlling impacts of off-highway vehicle use on vegetation and special status plant species as no routes are expected to be closed to protect vegetation and special status plant species.

Alternative B (Access): While this alternative provides a specific travel management network that is expected to have the beneficial effect of controlling impacts of off-highway vehicle use on vegetation and special status plant species, due to the number of routes identified as open to off-highway vehicle traffic under this alternative, it could still contribute to the unwanted alteration of vegetation within the Planning Area. It would, therefore, have a less beneficial effect on vegetation and special status plant species than either Alternative C or D. Under this alternative, 47% of the routes within 250m of a wash are expected to be closed, 25% of the routes within a wash are expected to be closed, 37% of the routes that cross a wash are expected to be closed, and 50% of routes that lead to a wash are expected to be closed. In addition, under this

alternative, 52% of the routes located in special status plant species habitat are expected to be closed, and 44% of the routes located within areas with invasive non-native plant species are expected to be closed.

Alternative C (Proposed action): This alternative closes more routes or places a restriction on off-highway vehicle use on trails with the highest potential to create direct impacts to known vegetation and special status plant species of concern as identified by resource specialists and other agency representatives during individual route surveys than *Alternative A* or *B*. This alternative would have a more beneficial effect of controlling impacts of off-highway vehicle use on vegetation and special status plant species than *Alternative B*, but a less beneficial effect than *Alternative D*, because of the number of routes closed between the two. Under this alternative, 67% of the routes within 250m of a wash are expected to be closed, 48% of the routes within a wash are expected to be closed, 55% of the routes that cross a wash are expected to be closed, and 70% of routes that lead to a wash are expected to be closed. In addition, under this alternative, 66% of the routes located in special status plant species habitat are expected to be closed, and 63% of the routes located within areas with invasive non-native plant species are expected to be closed.

Alternative D (Resource Protection): By closing or placing restrictions on the most routes, this alternative is expected to have the most beneficial effect of controlling impacts of off-highway vehicle use on vegetation and special status plant species; however, because this alternative designates the fewest open routes, vehicular travel is expected to be more concentrated on the remaining open routes; which could intensify damage to vegetation along those routes. Under this alternative, 80% of the routes within 250m of a wash are expected to be closed, 82% of the routes within a wash are expected to be closed, 73% of the routes that cross a wash are expected to be closed, and 88% of routes that lead to a wash are expected to be closed. In addition, under this alternative, 78% of the routes located in special status plant species habitat are expected to be closed, and 78% of the routes located within areas with invasive non-native plant species are expected to be closed.

Cumulative Impacts for All Alternatives: With consideration of climate change predictions for:

- a potential for higher temperatures, evapotranspiration rates, and periods of drought;
- more intense storms and flood events;
- less plant available water and moisture; and
- an increase in non-native and noxious weeds, there is a strong possibility that native vegetation may take longer to recover once disturbed throughout the Planning Area.

Non-native and noxious weeds may out-compete native vegetation in areas where routes are closed and natural reclamation is occurring. Non-native and noxious weeds are also expected to increase proportionately and parallel to population growth throughout the Planning Area for all alternatives.

A recommended mitigation measure is to work with La Paz and Yuma Counties for weed eradication efforts.

Table 29. Comparison of Closed Routes Associated with Washes in the Planning Area

Alternative	Routes Closed within 250 meters of a Wash (% of Total Routes*)	Routes Closed in a Wash (% of Total Routes*)	Routes Closed that Cross a Wash (% of Total Routes*)	Routes Closed that Lead to a Wash (% of Total Routes*)
A (No Action)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
B (Access)	264 (47%)	69 (25%)	356 (37%)	125 (50%)
C (Proposed Action)	381 (67%)	130 (48%)	528 (55%)	176 (70%)
D (Resource Protection)	450 (80%)	222 (82%)	696 (73%)	221 (88%)

* See Table 28 for Total Routes

Table 30. Comparison of Closed Routes Associated with Vegetation and Special Status Plants

Alternative	Routes Closed in Other Special Status Plant Species Habitat (% of Total Routes*)	Routes Closed within Areas with Invasive Non-native Plant Species (% of Total Routes)
A (No Action)	0 (0%)	0 (0%)
B (Access)	65 (52%)	531 (44%)
C (Proposed Action)	83 (66%)	771 (63%)
D (Resource Protection)	97 (78%)	927 (78%)

* See Table 28 for Total Routes

3.14 VISUAL RESOURCES

AFFECTED ENVIRONMENT

Visual Resource Management (VRM) is a process BLM uses to identify and manage scenic values to reduce visual impacts of development or other surface-disturbing activities on public lands. There are four VRM classes, I, II, III, and IV with the lower number representing the higher visual quality. The class objectives are as follows:

VRM Class I – The objective of this class is to preserve the existing character of the landscape. This class provides for the natural ecological changes; however, it does not preclude very limited management activity. The level of change of the characteristic landscape should be very low and must not attract attention.

VRM Class II – The objective Class II is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

VRM Class III – The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not

dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. VRM Class IV – The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

The 2010 Yuma RMP designated 42,586 acres of public land within the Planning Area as VRM Class I (New Water Mountains Wilderness); 116,687 acres as VRM Class II; 225,996 acres as a VRM Class III; and 16,830 acres as VRM Class IV. During the route evaluation process, routes within the individual VRM classes were identified.

Table 31. Routes Associated with Visual Resources in the Planning Area

Visual Resource Management Class	# of Routes
I (Level of changes allowed is low)	0
II (Retain landscape (LS) character)	547
III (Partially retain LS character)	1612
IV (Changes to LS can be high)	54

ENVIRONMENTAL CONSEQUENCES

Routes impact visual resources by creating contrasting lines where they do not follow natural curves (topography) found on the landscape. Changes in color and form from road cuts and cribbing for routes also create visible impacts. Changes to line, color, and form in the landscape are measured from “key observation points.” These are points where the most number of individuals would observe the different individual routes. Key observation points for the travel network are most often from within communities, the high-traveled roads like AZ State Highway 95, Plomosa Road or popular routes within the network. In the desert environment, the amount of contrast can diminish over time, but vehicle tracks and hiking trails can be visually seen years after the traffic has stopped using a route.

Impacts common to all alternatives: The absence of a TMP has contributed to the lack of control for route proliferation and thereby increased contrasting linear disturbances on the landscaped. However, any establishment of a route network is expected to curb route proliferation and decrease future degradation of visual resources. Under all alternatives, the use of certain management tools, such as the increased number of signs, route markers and man-made barriers could affect the visual elements of line, form, and color on individual open routes.

Alternative A (No Action): This alternative would not change the existing route designation as 100% of existing routes would remain open regardless of the VRM Class designation. Because no routes are closed under this alternative, and no rehabilitation of any routes are expected, this

alternative is not expected to have the beneficial effect of lessening the contrast associated with existing routes.

Alternative B (Access): A decrease in visual influence of the route network designated as “closed” routes is expected to occur over time as these routes would start to reclaim and blend with the surrounding environment. Therefore, this alternative is expected to be the most visually impacting of the three action alternatives as only 37% of the routes in VRM Class II would be closed, 46% of the routes in VRM Class III would be closed, and 43% of routes in Class IV would be closed.

Alternative C (Proposed Action): Over time a decrease in visual influence of the route network designated as “closed” routes would occur as these routes would start to reclaim and blend with the surrounding environment. Therefore, this alternative would be less visually impacting than either *Alternative A* or *B* but more visually impacting than *Alternative D* as 54% of the routes in VRM Class II would be closed, 64% of the routes in VRM Class III would be closed, and 48% of routes in Class IV would be closed.

Alternative D (Resource Protection): This alternative, while closing the most number of miles, would place additional use on the remaining routes. Over the long-term this could increase change in color and line as vegetation and soils are impacted. Also over the long-term, a beneficial visual influence for the route network designated as “closed” is expected to occur as these routes would start to reclaim naturally and blend with the surrounding environment. It is expected that over the long-term this alternative could be less visually impacting than any of the other alternatives as 77% of the routes in VRM Class II would be closed, 80% of the routes in VRM Class III would be closed, and 65% of routes in Class IV would be closed.

Table 32. Comparison of Closed Routes Associated with Visual Resources in the Planning Area

Alternative	Routes Closed in VRM Class II (% of Total Routes*)	Routes Closed in VRM Class III (% of Total Routes*)	Routes Closed in VRM Class IV (% of Total Routes*)
A (No Action)	0 (0%)	0 (0%)	0 (0%)
B (Access)	201 (37%)	734 (46%)	23 (43%)
C (Proposed Action)	295 (54%)	1032 (64%)	26 (48%)
D (Resource Protection)	417 (77%)	1282 (80%)	35 (65%)

* See Table 31 for Total Routes

3.15 WILDERNESS, NEW WATER MOUNTAINS WILDERNESS

AFFECTED ENVIRONMENT

The 24,600-acre New Water Mountains Wilderness was designated by the U.S. Congress as a part of the Arizona Desert Wilderness Act of 1990. The New Water Mountains Wilderness is characterized by colorful craggy spires, sharp ridges, sheer rock outcrops, natural arches, and canyons. The Plan EA would not change management provisions for the wilderness. Any changes to wilderness management provisions would be accomplished through the wilderness planning process.

Table 33. Routes Associated with the Wilderness Access in the Planning Area

Access to Wilderness	# of Routes
Routes that Lead to Wilderness	85
Routes Associated with Wilderness Access	35

Access to large portions of the Kofa Refuge Wilderness, an area adjacent to the New Water Mountains Wilderness which was also designated by the AZ Desert Wilderness Act of 1990, is currently provided; however, the Plan EA does not address lands administered by the U.S. Fish and Wildlife Service.

Access to the New Water Mountains and Kofa National Wildlife Refuge Wilderness areas is provided through the Planning Area. Several routes follow wilderness boundaries. There are also four routes which start on BLM public lands and continue into non-wilderness corridors that end within the Kofa National Wildlife Refuge Wilderness. In total, 81 routes that lead to wilderness areas in or adjacent to the Planning Area were identified during the evaluation process, and 32 additional routes were identified as being associated with wilderness access. All other routes within designated wilderness areas were closed to motorized and mechanical transport when the areas were designated as wilderness.

ENVIRONMENTAL CONSEQUENCES

There are no buffer zones for wilderness so the majority of route designations, regardless of alternative, will not have direct impacts within the wilderness areas. A potential for direct impacts occurs where unauthorized vehicles enter one of the wilderness areas from routes located along a wilderness boundary. *Alternatives B, C, and D* would increase management of boundary routes, and additional monitoring thus decreasing possible impacts. See Table 30 for a comparison of routes.

Alternative A (No Action): Because this alternative does not include any increased management of boundary routes, the potential from direct impacts from unauthorized vehicles entering the wilderness areas from routes located along a wilderness boundary are higher under this alternative than any of the action alternatives.

Alternative B (Access): This alternative addresses the potential direct effects of unauthorized incursions along wilderness boundary routes by closing 17% of the roads that lead to wilderness areas and 40% of routes associated with wilderness access.

Alternative C (Proposed Action): This alternative addresses the potential direct effects of unauthorized incursions along wilderness boundary routes by closing 38% of the roads that lead to wilderness areas and 63% of routes associated with wilderness access.

Alternative D (Resource Protection): This alternative addresses the potential direct effects of unauthorized incursions along wilderness boundary routes by closing 59% of the roads that lead to wilderness areas and 77% of routes associated with wilderness access.

Table 34. Comparison of Closed Routes Associated with Wilderness Access in Planning Area

Alternative	Routes Closed that Lead to Wilderness (% of Total Routes*)	Routes Closed Associated with Wilderness Access (% of Total Routes*)
A (No Action)	0 (0%)	0 (0%)
B (Access)	17 (20%)	14 (40%)
C (Proposed Action)	32 (38%)	22 (63%)
D (Resource Protection)	50 (59%)	27 (77%)

* See Table 33 for Total Routes

3.16 WILDLIFE/SPECIAL STATUS SPECIES

AFFECTED ENVIRONMENT

The BLM administers public lands as wildlife habitat (food, cover, water, and space). BLM does this in conjunction with AZGFD, an agency that manages the wildlife. The Planning Area provides a wide range of habitat for a diverse array of wildlife, including BLM sensitive species. There are no listed, threatened, or endangered species within the Planning Area; however, there are three Wildlife Habitat Management Areas (WHAs). Identified in the 2010 Yuma RMP, the Dunes WHA, the Desert Mountains WHA and the Wildlife Movement Corridors WHA were designated to promote healthy terrestrial, aquatic, and riparian ecosystems for biological diversity, ecological integrity and sustainability, and social and cultural needs.

Table 35. Routes Associated with Wildlife Habitat Management Areas in the Planning Area

Access to Wildlife Habitat Management Areas	# of Routes
Routes Associated with Dunes WHA	137
Routes Associated with Desert Mountain WHA	865
Routes Associated with Wildlife Movement Corridors WHA	315

A 10-J non-essential, experimental population of Sonoran Pronghorn was released in January 2013 within King Valley of the Kofa National Wildlife Refuge. King Valley connects to BLM lands in the southern tip of the Planning Area and may support pronghorn in the future. This population of Sonoran Pronghorn is categorized as a sensitive species on public lands. Common wildlife species within the Planning Area include: mountain lion, desert bighorn sheep, mule deer, bats, ferruginous hawk, peregrine falcon, owls, banded Gila monster, and the Sonoran Desert tortoise.

BLM has identified sensitive habitat areas specific to Sonoran Desert tortoise, desert bighorn sheep, and mule deer. The La Posa TMA has been classified as either Category 2 or Category 3 habitats for the Sonoran Desert tortoise. During the route designation process, routes associated with Sonoran Desert tortoise, desert bighorn sheep, and mule deer were identified.

Table 36. Routes Associated with the Special Status Species in the Planning Area

Access to Areas with Special Status Species	# of Routes
Routes In or Proximate to Desert Tortoise Class II Habitat	548
Routes In or Proximate to Desert Tortoise Class III Habitat	965

Routes In or Proximate to Desert Bighorn Sheep Habitat	1,009
Routes In or Through Mule Deer Habitat	2,021

ENVIRONMENTAL CONSEQUENCES

Potential impacts to wildlife and their habitats include the fragmentation of wildlife habitat by routes, habitat loss, and indirect disturbance by visitors. The proposed action would create noise which may startle animals during breeding seasons or when they are seeking shelter from high temperatures.

Alternative A (No Action): This alternative would continue to keep all primitive roads and trails “open” without regard to possible conflicts with wildlife and special status species. Management of the routes would be left to future site specific project plans. This alternative would not have the beneficial impact of controlling impacts of off-highway vehicle use on wildlife and special status species as no routes would be closed to protect wildlife and special status species.

Alternative B (Access): While this alternative provides a specific travel management network that would have the beneficial effect of controlling impacts of off-highway vehicle use on wildlife and special status species; due to the number of routes identified as open to off-highway vehicle traffic under this alternative, it could still contribute to the unwanted alteration of wildlife and special status species within the Planning Area. It would, therefore, have a less beneficial effect wildlife and special status species than either of the two remaining alternatives. Under this alternative, 53% of the routes associated with the Dunes WHA would be closed, 34% of the routes associated with the Desert Mountains WHA would be closed, and 43% of the routes associated with wildlife movement corridors would be closed. In addition, under this alternative, 36% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 45% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 38% of routes in or proximate to Desert Bighorn Sheep Habitat would be closed, and 45% of routes in or through Mule Deer Habitat would be closed.

Alternative C (Proposed action): This alternative closes routes or places a restriction on off-highway vehicle use on those trails which may have the highest potential to create direct impacts to known wildlife and special status species. This alternative would have a more beneficial effect of controlling impacts of off-highway vehicle use on wildlife and special status species than Alternative B, but a less beneficial effect than Alternative D. Under this alternative, 67% of the routes associated with the Dunes WHA would be closed, 54% of the routes associated with the Desert Mountains WHA would be closed, and 56% of the routes associated with wildlife movement corridors would be closed. In addition, under this alternative, 56% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 61% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 56% of routes in or proximate to Desert Bighorn Sheep Habitat would be closed, and 63% of routes in or through Mule Deer Habitat would be closed.

Alternative D (Resource Protection): By closing and/or placing restrictions on the most routes, this alternative would have the most beneficial effect for controlling impacts of off-highway

vehicle use on wildlife and special status species; however, because this alternative designates the fewest open routes, vehicular travel would be more concentrated on the remaining open routes which could intensify damage to sites along open routes. Under this alternative, 79% of routes associated with the Dunes WHA would be closed, 76% of the routes associated with the Desert Mountains WHA would be closed, and 71% of the routes associated with wildlife movement corridors would be closed. In addition, under this alternative, 78% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 79% of the routes in or proximate to Desert Tortoise Class II Habitat would be closed, 76% of routes in or proximate to Desert Bighorn Sheep Habitat would be closed, and 80% of routes in or through Mule Deer Habitat would be closed.

Table 37. Comparison of Closed Routes Associated with Wildlife Habitat Management Areas

Alternative	Routes Closed Associated with Dunes WHA (% of Total Routes*)	Routes Closed Associated with Desert Mountains WHA (% of Total Routes*)	Routes Closed Associated with Wildlife Movement Corridors WHA (% of Total Routes*)
A (No Action)	0 (0%)	0 (0%)	0 (0%)
B (Access)	72 (53%)	295 (34%)	136 (43%)
C (Proposed Action)	92 (67%)	468 (54%)	176 (56%)
D (Resource Protection)	108 (79%)	657 (76%)	225 (71%)

* See Table 36 for Total Routes

Table 38. Comparison of Closed Routes Associated with Special Status Species in the Planning Area

Alternative	Routes Closed In or Proximate to Desert Tortoise Class II Habitat (% of Total Routes*)	Routes Closed In or Proximate to Desert Tortoise Class III Habitat (% of Total Routes*)	Routes Closed In or Proximate to Desert Bighorn Sheep Habitat (% of Total Routes*)	Routes Closed In or Through Mule Deer Habitat (% of Total Routes*)
A (No Action)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
B (Access)	198 (36%)	436 (45%)	383 (38%)	912 (45%)
C (Proposed Action)	307 (56%)	589 (61%)	566 (56%)	1271 (45%)
D (Resource Protection)	428 (78%)	761 (79%)	768 (76%)	1616 (80%)

* See Table 36 for Total Routes

CHAPTER 4: MONITORING AND MITIGATION

CEQ states in their Jan. 14, 2011 guidance that:

“Mitigation measures included in the project design are integral components of the proposed action, are implemented with the proposed action, and therefore should be clearly described as part of the proposed action that the agency will perform or require to be performed. Consequently, the agency can address mitigation early in the decision-making process and potentially conduct a less extensive level of NEPA review.”

“Consequently, when such mitigation measures are available and an agency commits to perform or ensure the performance of them, then these mitigation commitments can be used to support a FONSI, allowing the agency to conclude the NEPA process and proceed with its action without preparing an EIS.”

4.1 MONITORING FOR THE ALTERNATIVE SELECTED

Monitoring is expected to occur under any of the action alternatives analyzed. The La Posa TMP defines protocols, practices, and other governing actions that are also expected to be followed once the Plan EA has been finalized and a Decision has been issued.

4.2 MITIGATING MEASURES FOR THE ALTERNATIVE SELECTED

- (1) Desert Tortoise: Routes that are impassable, and where crews are not able to restore the route to its previous condition without the use of heavy equipment, will have a tortoise monitor on site prior to the use of heavy equipment to ensure no desert tortoises will be harmed and that no new habitat is disturbed.
- (2) Road Signing: After the decision has become effective, all open/limited/non-motorized routes will be signed accordingly. Newly proliferated routes not included in the EA will be closed and restored without further public review.
- (3) Restoration: BLM will implement restoration on any route designated closed which is causing harm to resources. Newly proliferated roads will be restored (see mitigation measure 2 above).
- (4) Route Monitoring Strategy: All routes will be regularly monitored. BLM will develop a monitoring program with metrics to evaluate route use and impacts to surrounding resources. The routes will be regularly monitored and results compiled. Route monitoring may include, but is not limited to, sign replacement, traffic counts, damage assessments to cultural and biological resources, Site Stewardship reports, sign vandalism, and Law Enforcement contacts. BLM will continue to involve the public in route monitoring efforts.
- (5) Changes to Route Network: Decisions to change route designations will be pursuant to 43 CFR 8342.3 and based on results of information (metrics) collected over time. A separate analysis, public scoping, and decision record will be completed.

- (6) Develop educational materials for users including site specific maps, brochures, interpretive exhibits, trailhead information kiosks.
- (7) All workers onsite will be given a Service approved desert tortoise briefing and the BLM's desert tortoise fact sheet to educate them on various aspects of desert tortoise life history and legal protection, as well as to inform them of the stipulations required as part of the proposed action.
- (8) If a tortoise is encountered, it shall be avoided and allowed to move out of harm's way of its own volition. No tortoises will be handled. The BLM's wildlife staff will be notified at (928) 317-3200 if any tortoises are observed during project activities.
- (9) All workers associated with implementation of the La Posa TMP will be instructed to check underneath their vehicles and around the tires before moving them to check for tortoises sheltering underneath. The vehicle may not be moved until the tortoise has moved itself out of harm's way. The BLM's wildlife staff will be contacted if a tortoise will not move out from under a vehicle and a work stoppage has resulted.
- (10) No trash or food items will be deposited onsite.
- (11) A speed limit of 15 miles-per-hour shall be required during implementation activities.
- (12) The BLM's Wildlife Biologist (928) 317-3200, and the Service's Arizona Ecological Services Field Office (602) 242-0210 must be notified of any desert tortoise death or injury due to project activities immediately, or if no phone or radio reception is available by close of business on the following working day.
- (13) All vehicle traffic will be restricted to designated open and limited routes, as identified in the approved Plan.
- (14) During reclamation activities, only native seed mixtures will be planted. Where soil disturbance will occur, all equipment will be required to be cleaned and inspected prior to use within the monument. Public education and signs promoting the use of clean vehicles preventing the spread of weeds shall be included in entry kiosks and on literature.

CHAPTER 5: CONSULTATION AND COORDINATION

5.1 TRIBES, INDIVIDUALS, AND AGENCIES CONSULTED

Arizona Game and Fish Department, Region IV
Arizona Department of Transportation
Arizona OHV Coalition
Arizona State Historic Preservation Office
Arizona State Lands Department
Arizona State Parks
BLM's Resource Advisory Council
U.S. Bureau of Reclamation
U.S. Fish and Wildlife Service
U.S. Department of Defense Yuma Proving Ground
U. S Fish and Wildlife Service, Kofa National Wildlife Refuge

Ak-Chin Indian Community
Chemehuevi Indian Tribe
Cocopah Indian Tribe
Colorado River Indian Tribes
Fort Mojave Indian Tribe
Fort Yuma-Quechan Tribe
Gila River Indian Community
The Hopi Tribe
Hualapai Tribe
Pueblo of Zuni
Salt River Pima-Maricopa Indian Community
Tohono O'odham Tribal Nation
Yavapai-Apache Nation
Yavapai-Prescott Indian Tribe

5.2 LIST OF PREPARERS/INTERDISCIPLINARY EVALUATION TEAM

Joseph Raffaele	BLM, Outdoor Recreation Planner
Theresa Schutt	BLM, Administrative Assistant
John Hall	BLM, Rangeland Management Specialist
Candy Holzer	BLM, Land Law Examiner
Thomas K. Jones	BLM, Archaeologist
Erica Stewart	BLM, Wildlife Biologist
Arturo Lopez	BLM, Realty Specialist
Victoria Anne	BLM, Planning & Environmental Coordinator
Ron Morfin	BLM, Team Lead, Recreation & Wilderness
Bill Gibson	BLM, Travel Management Coordinator
Jen House	BLM, Travel Management Coordinator
Michael Johnson	BLM, Socio-Economics Contributor
Bill Knowles	AZGFD , Habitat Specialist. Region IV

APPENDICES

APPENDIX A: Public Comments

The 45-day public comment period started on November 7, 2013. YFO staff reviewed all public comments and made changes, as appropriate, to the range of alternatives of the La Posa TMP. An additional 30-day public comment period started on January 21, 2015. The public comment period was extended for an additional 30 days. Throughout 2015, YFO staff reviewed all public comments and made additional changes, as appropriate, to the range of alternatives of the La Posa TMP. Below is a synopsis of the public comments received for the La Posa TMP.

Specific Routes	Desired Actions or Comments	Number of Comments
LP321	Route between LP2383 & LP262	2
LP3023	Interesting Natures Landscape.	1
1B	As many routes as we can leave open in	1
All of 1A	exploring, rock hounding and fossil collecting	1
Alt D LP1042	Close dead end route	1
Alt D LP1102	Route access	1
Alt D LP1104	Route access	1
Alt D LP1110	Route access	1
Alt D LP1114	Route access	1
Alt D LP2110	Route access	1
Alt D LP3148	Route access	1
Alt D LP3160	Route access	1
LP285	Recreational access and mining access	2
L2406	Route access/ camping	1
LP077	Route access	2
LP078	Route access	1
LP079	Route access	1
LP089	Route access	2
LP094	Route access	2
LP097	Rock hounding	1
LP102	LP102 and LP3003 complete a loop from LP2753 to LP2763/ Recreation, route access, and firing range	8
LP1087	Dripping Springs Access	7
LP1114	Scenic route/mining access	4
LP1120	Rock hounding	1
LP1298	Route Access same route as 3282 connector LP1220 and LP3281	1

Specific Routes	Desired Actions or Comments	Number of Comments
LP1323	Access: same route as LP3186. Route to property avoiding YPG, connects with hiking area, Major north/south route, access from Tyson Wash by YPG back to Pipeline Road	7
LP1373	Route access/ rock hounding	1
LP1404	Route access/ rock hounding	1
LP1437	LP1437-LP4054-LP1470 all the same trail, keep open, more use.	1
LP1470	Connects LP386 & LP3202. LP1437-LP1470 all the same trail, keep open, more use.	4
LP1483	Route access/ rock hounding	1
LP1495	connects route LP3203 & LP1515	3
LP1515	Route access	5
LP1533	More direct route to areas for rock hounding	1
LP1583	Route parallels the CRIT not on Tribal Lands	3
LP1700	Scenic route/ mining access/rock hounding	4
LP1868	Scenic loop	3
LP1946	Scenic viewpoints/mining access	4
LP1951	Connector/ Route access	3
LP1978	Recreational Exploring/ mining	6
LP2041	route access/ Scenic view/ Wildlife	2
LP2041	Route Access West Quartzsite to SE La Posa Long Term Visitor Area	1
LP2041	Connecting trail in Quartzsite area to open areas	1
LP2169	Mining Access	1
LP2218	Mining Access	1
LP2233	Mining Access/ rock hounding	7
LP2259	Route access	1
LP232	Route access	1
LP233	Route access	1
LP2333	box culvert passage from north to south I-10	3
LP234	Route access	2
LP2354	Route access/ staging area/ Kofa	2
LP2360	box culvert passage from north to south I-10	3
LP2378	Route access/LP3107 Loop/Camping	8
LP2378	Route access/ LP3107 Loop	2
LP2378	Trail is part of the Arizona Sunriders trail system	1
LP2378	Part of trails system map/ General Patton camp	1
LP2381	Route access/ staging area/ Kofa	2
LP2383	Route access	2

Specific Routes	Desired Actions or Comments	Number of Comments
LP2405	This route needs to be left open as another route out of LP232 in case problems occur.	1
LP2406	Route access	4
LP2406	This trail is part of the Arizona Sunriders trail system	2
LP244	Route access	2
LP2464	Mining access	3
LP2464	Marquitta Pass/ Views	2
LP2464	Route access	2
LP2464	Connector trail from LP285 to LP747. This makes a good loop for a good ride for a scenic day.	
LP2473	Scenic route/Shorter route access	3
LP2488	This trail is part of the Arizona Sunriders trail system	2
LP2523	Scenic route	3
LP2523	This trail is part of the Arizona Sunriders trail system	1
LP2523	Part of the La Paz trail system map/ General Patton camp	1
LP2523	Route access	1
LP2534	Route access	3
LP2534	Access to foothill or rock trail	1
LP2536	Route access	1
LP2539	Route access/ views	1
LP2541	Mining access	1
LP2541	Non-4 wheel drive vehicle access	1
LP2544	Access to foothill or rock trail	2
LP2548	Route access	3
LP2559	Connector Lp2544 and LP262	1
LP2559	Rock hounding	1
LP257	Mining Access	6
LP257	lunch recreation location	1
LP2574	Completes Route	2
LP2575	Completes Route	2
LP2583	Mining Access	5
LP2592	this trail is part of the Arizona Sunriders trail system	1
LP2592	General Patton camp	1
LP2599	Mining Access, Lunch, rock clubs	10
LP262	Route access	4
LP265	Route access	3
LP266	Route access	7

Specific Routes	Desired Actions or Comments	Number of Comments
LP2667	4WD regular road connecting to used trail	1
LP2749	Route access/Rock hounding/ spotting lost hikers	3
LP2751	Connector route LP2724, LP1073, and LP2714	4
LP2751	Rock hounding/ spotting lost hikers	1
LP2753	LP102 and LP3003 complete a loop from LP2753 to LP2763/ Recreation	4
LP2754	Rock hounding	1
LP2760	Route access	1
LP2763	LP102 and LP3003 complete a loop from LP2753 to LP2763/ Recreation	2
LP2764	Rock hounding	1
LP2765	Rock hounding	1
LP2770	Rock hounding	1
LP2777	Route access	1
LP2779	Route access	2
LP2796	Rock hounding	1
LP2798	Route access	3
LP2803	Route access to Tribal lands	2
LP282	Mining access	1
LP2822	Access to Highway 95	2
LP2822	Rock hounding	1
LP285	Route access	5
LP300	4WD trail that connects with 305	1
LP3003	Connects to scenic route/ access	7
LP3003	LP102 and LP3003 complete a loop from LP2753 to LP2763/ Recreation	3
LP3003	Connector LP094 and LP089	1
LP3003	Firing ranges	1
LP3003	Route access to sand dunes	1
LP3003	Rock hounding	1
LP3023	Route access	3
LP304	Mining Access	1
LP3048	Major East-West route for exploring/ rock hounding	1
LP3048	Spotting lost hikers	1
LP3050	Mining Access	2
LP3058	Route access LP300	2
LP3067	Route access	2
LP3067	Rock hounding/ spotting lost hikers	1
LP3071	this trail is part of the Arizona Sunriders trail system	3
LP3074	Route access	1

Specific Routes	Desired Actions or Comments	Number of Comments
LP3077	Route access	4
LP3087	Continuation of open routes/ mining access	1
LP3099	Route access	1
LP3104	Connecting Route to Brenda	3
LP3107	Route access	3
LP3107	Route access/ LP2378 Loop /camping	3
LP3107	this trail is part of the Arizona Sunriders trail system	1
LP3107	Access to North South open Trail from Plomosa Rd.	1
LP3107	Part of trails system map/ General Patton camp	1
LP3108	Route access	2
LP3109	Route access	1
LP3112	Route access, Connector LP 3112 and LP1000 into Dripping Springs, Main wash to top of bench open but change the rest to hiking, Recreation and Mining	5
LP312	Mining Access	1
LP3145	Access to KOFA National Wildlife Refuge	3
LP3145	Route access/ rock hounding	1
LP3172	Access	1
LP3186	Access: same route as LP1323. Route to property avoiding YPG	1
LP3192	Connector/ Route access	3
LP3197	Close trail	1
LP3202	Route access	3
LP3203	Route access	5
LP3215	Route access	5
LP3223	Connecting Route LP3215 & LP339	3
LP3226	Scenic viewpoints	3
LP3226	Mining access	1
LP3227	Mining access	1
LP3229	Mining access	1
LP3248	Access to Mining Ruins	5
LP3248	recreational Exploring	2
LP3279	Potential intrusions onto YPG property	1
LP3279	Route access	2
LP3282	Route Access same route as 1298 connector LP1220 and LP3281	1
LP3297	Access to Queen Canyon from north	3

Specific Routes	Desired Actions or Comments	Number of Comments
LP3322	East-west route and connecting routes need to be left open for east-west exploring/ rock hounding	1
LP3332	box culvert passage from north to south I-10	3
LP3333	Connects to route LP2798	2
LP3334	Route access/ Safely cross to save large bypass	1
LP338	Mining access	1
LP339	Route access	5
LP339	Mining access	1
LP342	Mining access	1
LP344	Mining access	1
LP363	Mining access	1
LP364	Mining access	1
LP368	Connecting Route LP3215 & LP339	3
LP386	Route access	3
LP4054	LP1437-LP4054-LP1470 all the same trail, keep open, more use.	1
LP4119	Route access/ rock hounding	1
LP4180	Route access	2
LP4180	Rock hounding/ spotting lost hikers	1
LP4188	Continuation of open routes/ mining access	1
LP4214	this trail is part of the Arizona Sunriders trail system	1
LP4214	Part of the La Paz trail system map/ General Patton camp	1
LP4214	this trail is part of the Arizona Sunriders trail system	1
LP4215	Part of the La Paz trail system map/ General Patton camp	1
LP4215	this trail is part of the Arizona Sunriders trail system	1
LP4216	this trail is part of the Arizona Sunriders trail system	1
LP4216	General Patton camp	1
LP4216	Shorter travel route between LP078 & LP424	1
LP421B	Scenic route	3
LP4228	Route access/ keep all attached routes open	1
LP4229	Route access/ keep all attached routes open	1
LP422A	Scenic route	3
LP423	Scenic route	3
LP423	Route access/ rock hounding	1

Specific Routes	Desired Actions or Comments	Number of Comments
LP424	Route access	1
LP4261	Mining access	1
LP4262	Mining access	1
LP4276	Rock hounding	1
LP4279	Boyer Gap Road/ Diablo Pass	5
LP4279	Access/ scenic view	4
LP4279	Recreation/ wildlife	3
LP4279	Connector/ loop LP285 , LP262, and LP2544- Sun Riders use this Trail	2
LP4294	Connects to scenic route/ access	2
LP4295	Rock hounding	1
LP4315	Route access to sand dunes	2
LP4317	Connects to scenic route/ access	2
LP4328	Connector route 95 to LP101	2
LP4328	Rock hounding	1
LP4329	Rock hounding	1
LP4342	Route access/ keep all attached routes open	1
LP4349	Route access	3
LP4360	Route access	1
LP4376	Route access LP233 & LP234	2
LP4421	95 to Tyson Wash via 4328	2
LP4421	Route access to HW 95 via LP4328	1
LP463	Recreational Trail w/ Hogback trail	7
LP464	Recreational Trail w/ Hogback trail	4
LP464	Great look trail	1
LP704	Desert Rose and Recreational Viewing	6
LP704	permit motorized administrative access	1
LP710	Scenic loop	3
LP738	Route access	2
LP738	Mining access	1
LP747	Route access	2
LP758	Route access	1
LP7584	Route access	1
LP761	Route access	2
LP779	Camper access	1
LP857	Route access	1
LP879	Potential intrusions onto YPG property	1
LP895	Potential intrusions onto YPG property	1
LP900	Access to Queen Canyon from north	3
LP921	Access	1

Specific Routes	Desired Actions or Comments	Number of Comments
LP922	Connector/ Route access	3
LP955	Scenic viewpoints	3
LP955	Mining access	1
LP956	Mining access	1
LP957	Scenic viewpoints	2
LP957	Mining access	1
LP2190	Connector LP2190 and LP3236	3
LP3172	Recreational access	1
Preacher's Pass	Recreational access and mining access and access from Quartzsite to Brenda	3
LP3195	Rainbow Acres to Quartzsite Open	1
Whole area south and southeast of the Plomosa Road	Rock hounding	1
Comments		<i>Totals</i>
Total Comments (Submissions)		
Environmental Consequences – Edit the first sentence to the following. Potential impacts to wildlife and their habitats include the fragmentation of wildlife habitat by routes, habitat loss, and indirect disturbance by visitors.		1
Environmental Consequences – Identify Class II and Class III tortoise habitat under Alternatives B-D.		1
Cumulative Impact Analysis – Edit the third sentence to the following. These important impacts not only affect recreation and transportation, but also the socioeconomic value of the area.		1
Appendices – Priority and T&E Species within the Planning Area – The Mohave fringe-toed lizard is also listed as a sensitive species by the BLM.		1
Appendices – Priority and T&E Species within the Planning Area – The flat-tailed horned lizard and the lowland leopard frog are not found within or near the TMA.		1
Under the multiple use doctrine for public lands, vehicular recreation is a supported category of public use. The currently proposed plan would close nearly half of the travel mileage enjoyed by vehicular recreationists, thus dramatically restricting vehicular access to recreation lands.		1
Removing nearly half of the travel ways available to vehicular recreationists would needlessly concentrate usage into limited “open” areas, thus subjecting the land to the consequences of overuse.		1

Comments	Totals
Constraining 100% of the vehicular recreationists into approximately 50% of the established travel ways would undoubtedly foster unrest as recreationists assert their right to multiple use of public lands, needlessly straining public services resources, and consequently undermining any restrictive plan.	1
Routes to mining claims should be left open.	1
Would like to see at least one free passage through the Indian Reservation to Ehrenberg.	1
Do not like the \$25 that the Indian Reservation charges.	1
Agrees with the closure some parallel routes.	1
Public meeting should be held in January when most of the public is in Quartzsite.	5
Consider putting more restrictions on people who abuse the area and not the people who help maintain it and keep it clean.	1
Reschedule the final closing comment date from December 21, 2013 until early February 2014.	1
Do not restrict access to public lands.	1
The Arizona Department of Transportation supports BLM's efforts to increase the safety of motorists by limiting access and the number of crossings of US 95 by trails, etc. as presented in the draft Environmental Assessment for the La Posa Travel Management Plan	1
Do not change the current status.	4
Focus on the trash near the Quartzsite.	1
Support for Preservation Alternative	1
Support for No Action Alternative	492
Support for Proposed Alternative	2
Allow access into Dripping Springs	1
Support for Access Alternative	4
Does not support Preservation Alternative	1
Socio-Economic needs accurate and up-to-date information.	7
Requesting an extension of the public comment period.	8
Reclamation requires access to Reclamation withdrawn lands, acquired lands, lands with Reclamation rights-of-way, and Reclamation's facilities for Colorado River bankline operation and maintenance purposes. Access must be maintained at all times.	1
The TMP should avoid any existing Reclamation facilities.	1
Recommends more user-friendly maps.	5
Recommends retaining the routinely used routes as open for the public's use.	1
Keep in mind the needs of the citizens.	1

Comments	<i>Totals</i>
All historic routes that were associated with mining, trucking or recreational access before 1980 should be left open, or reopened if now closed. Newer routes should only be closed if they are completely redundant with earlier routes. No closures should be made that result in reduced access to portions of the area.	1
Table 4 does not identify rock hounds, senior citizens and those with disabilities.	1
Comments from rock hounding groups have not been addressed.	1
Introduction - How many miles of the 4,600 miles are in section the La Posa TMA area?	1
Introduction – Of the 4,600 miles of routes only 3,200 were verified, what happened to the non-verified route? Were they just closed?	1
Purpose and Need – Referencing outdated information.	1
Planning Area – How many routes were found through aerial photography? What happened to the routes shown on the aerial photography?	1
Table 2 – How was use level determined? What time of the year was the use level determined?	1
Table 2 – What is the basis for declaring routes redundant?	1
Table 2 – How were reclaiming routes determined?	1
Table 2 – Routes should be listed as reclaiming.	1
Table 2 – Does this table identify every route in the Aerial photography?	1
External Scoping – Comments at scoping meetings and other public meetings need to be included in this document.	1
Table 6 – this EA should describe the mileage of reclaiming as mileage no longer in use in case it is still important for public use.	1
Alternative C – Does not maximize public recreation.	1
Cultural/Paleontological Resources – Why is it necessary to keep much of the public who can't walk long distances from enjoying these sites?	1
Cultural/Paleontological Resources – Explain why such site has to be protected by eliminating routes within ¼ mile of such a site.	1
Table 13 – Also needs to include the mileage being closed with these routes. How many of these routes and how much mileage is included in the closed mileage for each Alternative?	1
Environmental Consequences – Include miles and percentage of miles closed.	1
Environmental Consequences – Were alternatives considered for bypassing the area or stopping at the area?	1

Comments	Totals
Environmental Consequences – Was the memorandum mentioned put out for public comment?	1
Human Health and Public Safety – No mention of increased danger to the public caused by walking longer distances.	1
Human Health and Public Safety – No injuries documented with open mine shafts.	1
Recreation Affected Environment – What time of the year was the AZ survey done and was it surveyed in state parks?	1
Recreation Affected Environment – How was ATV separated from off-highway vehicle riding and why?	1
Table 17 Affected Environment – Table needs to be revised so rock hounding and exploring have the maximum mileages also.	1
Table 18 Affected Environment – How many miles of each type of route is proposed to be closed?	1
Recreation Environmental Consequences – How many branch miles are being closed compared to the mileage in the main routes?	1
Recreation Environmental Consequences – Does the total mileage include aerial photographs?	1
Recreation Environmental Consequences – Because branched routes are being closed the real effect of the closure is even higher on rock hounding and exploring.	1
Recreation Environmental Consequences – Why is hiking included in the TMA?	1
Recreation Environment Consequences – Table 19 needs to be revised so rock hounding and exploring have the maximum mileages also.	1
Recreation Environmental Consequences– Table 20 needs to be revised to mileage.	1
Socioeconomic Resources Environmental Consequences – Rock hounding and exploring not included here.	1
Soils Environmental Consequences – Has a negative impact by concentrating traffic to approximately half of the routes.	1
Supply the numbers of the routes being closed so we can evaluate the importance to the public.	1
Table 22 – Why are miles with known soil erosion concerns and mileage closed on desert pavement. How much closure is due to the solid and how much for other reasons?	1
Vegetation and Special Status – Everything should be based on routes closed with mileage as additional information.	1
Vegetation and Special Status – How much mileage was closed because of this section?	1
Vegetation and Special Status – Why is a route closed because it comes within 250 meters of a wash?	1

Comments	<i>Totals</i>
Wilderness, New Mountains Wilderness – Why are we closing along the boundary?	1
Cumulative Impact Analysis – Solar facilities not discussed.	1
Cumulative Impact Analysis – Overuse of remaining routes.	138
Cumulative Impact Analysis – Increase the dangers of collision and other accidents on remaining routes.	1
Tribes, Individuals, and Agencies Consulted – What individuals are included in this section? Where are their comment?	1
Tribes, Individuals, and Agencies Consulted – How can the public appeal this EA and TMA without this information?	1
Adequate and fair evaluation of all existing routes.	137
The current imbalance of non-motorized to motorized trails.	137
Adequate evaluation of at least one pro-recreation alternative in the analysis.	137
Significant analysis of the human environment.	137
Must also address the availability of non-motorized vehicles in the wilderness.	137
One alternative should maximize the ability to construct new sustainable trails to meet the current and future need.	137

APPENDIX B. DATA ANALYSIS

In this Appendix are the tables which compare the route designation(s) by Alternative for following resources:

Chart 1 –Dripping Springs ACEC.	76	
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Each table lists first the number of routes and then the mileage for each of the following (unless noted on the table):

- Open. Those routes that are designated open for use by all including all types of vehicles. These include routes designated open with mitigation.
- Limited – Admin. Routes that are designated open for permitted or authorized vehicles and non-motorized use.
- Limited – NM. Routes that are designated open to non-motorized use only.
- Limited – Other. Routes that are designated open for vehicle use, but other limitation occur such as seasonal closure or limited by type of vehicle or user (example motorcycles only.).
- Closed. Decommissioned routes are discontinued for all forms travel and over time should be visually eliminated from the landscape.

Chart 1 –Dripping Springs ACEC.

ACEC Routes		Routes Within ACEC	Routes In Prox. to ACEC	ACEC Routes		Routes Within ACEC	Routes In Prox. to ACEC
Alternative A	Open	69 60.38	34 29.84	Alternative C	Open	24 38.56	19 23.41
	Limited – Admin	0 0	0 0		Limited - Admin	5 3.96	1 2.24
	Limited – NM	0 0	0 0		Limited - NM	1 .2	0 0
	Limited – Other	0 0	0 0		Limited - Other	1 1.08	0 0
	Closed	0 0	0 0		Closed	40 16.58	14 4.19
Alternative B	Open	42 48.17	24 27.06	Alternative D	Open	7 26.22	12 14.92
	Limited – Admin	0 0	0 0		Limited - Admin	3 2.06	1 .15
	Limited – NM	1 .2	0 0		Limited - NM	0 0	0 0
	Limited – Other	3 2.28	1 0.19		Limited - Other	0 0	0 0
	Closed	23 9.73	9 2.59		Closed	59 32.1	21 14.77

Chart 2 - Cultural Resources

Routes with identified Cultural Concerns		In or Through Cultural Site Polygon (100 feet)	Proximate to Cultural Sites Polygon (1/4 mile)	In or Through Site Steward Cultural Polygon (100 feet)	Proximate to Site Steward Cultural Polygon (1/4 Mile)	In High Probability Cultural Resource	Tank Tracks Appearing on Aerial Photos
Alternative A	Open	306 511.12	698 784.32	28 24.82	58 35.36	876 960.24	25 29.73
	Limited - Admin	0 0	0 0	0 0	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0	0 0	0 0
Alternative B	Open	163 429.57	326 572.08	12 20.73	34 28.85	478 720.17	7 9.25
	Limited -Admin	21 9.3	47 29.46	0 0	0 0	15 7.15	0 0
	Limited - NM	0 0	1 .2	0 0	1 .2	1 .2	0 0
	Limited - Other	1 0.52	3 1.75	0 0	1 1.08	4 2.47	0 0
	Closed	121 71.73	321 180.83	16 4.09	22 5.23	378 230.25	18 20.48
Alternative C	Open	117 395.9	196 491.53	10 19.32	12 22.24	304 613.15	2 1.30
	Limited -Admin	32 18.46	65 39.81	0 0	0 0	40 20.71	0 0
	Limited - NM	0 0	1 .2	0 0	1 .2	1 .2	0 0
	Limited - Other	0 0	2 1.23	0 0	1 1.08	4 3.93	0 0
	Closed	157 96.76	434 251.55	18 5.5	44 11.84	527 522.25	23 28.43
Alternative D	Open	67 279.43	98 323.25	8 18.25	12 20.33	120 371.02	0 0
	Limited -Admin	34 22.09	79 51.48	0 0	2 2.35	62 38.85	1 0.29
	Limited - NM	1 1.62	0 0	0 0	0 0	2 1.26	0 0
	Limited - Other	0 0	1 .15	0 0	0 0	1 2.17	0 0
	Closed	204 207.98	520 409.44	20 6.57	44 12.68	691 546.31	24 29.44

Chart 3 - Wildlife Management Areas

Routes Associated with Wildlife Management Areas		Wildlife Movement Corridor	Desert Mountain	Dunes)
Alternative A	Open	315 458.76	865 710.47	137 239.44
	Limited - Admin	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0
	Closed	0 0	0 0	0 0
Alternative B	Open	144 353.71	534 592.97	62 145.17
	Limited - Admin	34 18.96	30 13.49	3 2.39
	Limited - NM	0 0	1 .2	0 0
	Limited - Other	1 2.45	5 2.56	0 0
	Closed	136 83.64	295 101.25	72 91.88
Routes Associated with Wildlife Management Areas		Wildlife Movement Corridor	Desert Mountain	Dunes
Alternative C	Open	93 327.49	322 32.26	38 99.79
	Limited - Admin	45 24.17	67 32.26	7 9.01
	Limited - NM	0 0	2 2.06	0 0
	Limited - Other	1 2.45	6 2.72	0 0
	Closed	176 114.65	468 181.1	92 130.64
Alternative D	Open	44 190.9	122 327.64	13 58.85
	Limited - Admin	46 29.28	83 50.06	15 19.13
	Limited - NM	0 0	3 4.18	1 1.19
	Limited - Other	0 0	0 0	0 0
	Closed	225 238.58	657 358.29	108 160.27

CHART 4 SENSITIVE SPECIES

Routes Associated with T&E or Sensitive Species		In T&E Species Habitat	In Other Special Status Plant Life	In Other Special Status Wildlife	Proximate to Other Special Status Wildlife
Alternative A	Open	43 25.87	125 268.79	47 54.8	10 20.88
	Limited - Admin	0 0	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0
Alternative B	Open	17 16.06	57 187.69	22 32.02	5 17.19
	Limited - Admin	4 .79	3 2.39	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0
	Closed	22 9.02	65 78.71	25 22.78	5 3.69
Alternative C	Open	13 15.14	35 145.31	13 21.16	4 15.63
	Limited - Admin	7 1	7 9.7	2 0.98	1 1.56
	Limited - NM	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0
	Closed	23 9.73	83 113.78	32 32.66	5 3.69
Alternative D	Open	0 0.00	11 54.07	4 9.44	4 15.63
	Limited - Admin	6 .9	17 21.04	3 1.97	1 1.56
	Limited - NM	0 0.00	0 0.00	0 0.00	0 0.00
	Limited - Other	0 0	0 0	0 0	0 0
	Closed	37 24.97	97 193.68	40 43.39	5 3.69

CHART 5 - INVASIVE PLANT SPECIES

Invasive Non-native Plant Species
1194 1315.07
0 0
0 0
0 0
0 0
0 0
615 952.4
43 32.64
1 .2
4 4.2
531 325.63
355 771.14
80 56.22
1 .2
4 4.17
754 483.34
166 477.34
98 74.77
2 2.81
1 .15
927 760.13

Chart 6 -Tortoise Habitat

Routes in Tortoise Habitat		In Sonoran TortoiseC-2 Habitat -	Prox* Sonoran Tortoise C-2 Habitat -	In Sonoran Tortoise C-3 Habitat	Prox* Sonoran Tortoise C-3 Habitat	Sonoran Tortoise Sighting -
Alternative A	Open	355 338.45	205 253.27	494 340.66	479 502.92	27 84.86
	Limited - Admin	0 0	0 0	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0	0 0
Alternative B	Open	240 292.18	107 193.62	282 274.21	200 341.51	14 79.82
	Limited - Admin	3 1.71	5 4.4	33 13.9	19 10.13	0 0
	Limited - NM	1 .2	0 0	0 0	0 0	0 0
	Limited - Other	4 2.47	0 0	1 0.09	1 2.45	0 0
	Closed	107 41.89	93 55.25	178 52.46	259 148.83	13 5.04
Alternative C	Open	136 235.03	74 168.9	177 235.79	126 279.95	12 79.28
	Limited - Admin	22 12.8	12 5.56	51 20.86	23 12.39	0 0
	Limited - NM	1 .2	0 0	1 1.86	0 0	0 0
	Limited - Other	4 2.14	1 2.17	2 0.58	1 2.45	0 0
	Closed	192 88.28	118 76.64	263 81.57	329 208.13	15 5.58
Alternative D	Open	44 163.91	35 118.97	74 150.73	51 126.32	6 13.95
	Limited - Admin	33 17.42	13 6.6	57 35.22	25 14.39	0 0
	Limited - NM	1 1.62	0 0	2 2.56	0 0	0 0
	Limited - Other	0 0	1 2.17	0 0	0 0	0 0
	Closed	277 155.5	156 125.53	361 152.15	403 362.21	21 70.91
* Prox. Distance = 3.5 KM						

CHART 7 -BIGHORN SHEEP HABITAT

Routes in Desert Bighorn Sheep Habitat		Survey Area - In or Through Habitat	Survey Area - Proximate to Habitat (1 KM)	In or Through Habitat	BHS Other
Alternative A	Open	413	601	183	1
		383.55	609.17	146.8	0.02
	Limited - Admin	0	0	0	0
		0	0	0	0
	Limited - NM	0	0	0	0
		0	0	0	0
	Limited - Other	0	0	0	0
		0	0	0	0
	Closed	0	0	0	0
		0	0	0	0
Alternative B	Open	260	335	85	1
		330.04	498.04	121.99	0.02
	Limited - Admin	18	21	15	0
		6.22	10.2	4.53	0
	Limited - NM	1	0	0	0
		.2	0	0	0
	Limited - Other	5	0	0	0
		2.56	0	0	0
	Closed	129	245	83	0
		44.53	100.93	20.28	0
Alternative C	Open	168	200	51	0
		285.64	427.67	109.06	0
	Limited - Admin	35	46	21	0
		17.4	20.01	6.79	0
	Limited - NM	1	1	1	0
		.2	1.86	1.86	0
	Limited - Other	5	1	0	0
		2.53	0.19	0	0
	Closed	204	353	110	1
		77.78	159.44	29.09	0.02
Alternative D	Open	54	94	35	0
		191.01	264.24	41.99	0
	Limited - Admin	53	49	16	0
		33.73	22.98	5.85	0
	Limited - NM	1	2	2	0
		0.70	3.48	2.56	0
	Limited - Other	0	0	0	0
		0	0	0	0
	Closed	305	456	130	1
		158.11	318.47	96.4	0.02

CHART 8 - MULE DEER HABITAT

Mule Deer Habitat
2021
1788.6
0
0
0
0
0
0
0
1016
1247.37
84
41.78
1
.2
8
5.68
912
493.57
597
988.22
142
75.25
2
2.06
9
7.49
1271
715.58
232
569.2
167
101.39
4
5.37
2
2.32
1616
1110.32

CHART 9 ROUTES ASSOCIATED WITH WASHES

Routes Associated with Washes		Proximate to Wash (250 m)	In Wash	Crosses Wash	Leads to Wash	Proximate to Wash with High Density Vegetation (250 m)	In Wash with High Density Vegetation	Crosses Wash with High Density Vegetation	Leads to Wash with High Density Vegetation
Alternative A	Open	566 406.44	272 404.89	952 1045.06	252 133.33	518 342.09	220 329.26	715 769.36	213 110.14
	Limited Admin	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	Limited NM	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	Limited Other	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Alternative B	Open	280 247.86	191 355.59	550 788.27	121 71.62	265 222.12	152 291.12	416 609.12	102 59.02
	Limited Admin	17 4.18	9 3.14	45 27.69	6 2.4	17 4.18	8 2.34	36 21.3	5 2.12
	Limited - NM	0 0	1 .2	0 0	0 0	0 0	2 .2	0 0	0 0
	Limited - Other	4 1.62	2 1.52	2 2.45	0 0	3 1.1	2 1.52	1 2.45	0 0
	Closed	264 146.15	69 44.44	356 226.65	125 59.31	233 114.69	57 34.08	262 136.49	106 48.94
Alternative C	Open	150 185.87	124 285.49	349 662.6	62 48.83	144 167.4	102 246.3	261 523.57	50 37.26
	Limited -Admin	30 9.32	14 8.35	72 47.52	14 4.26	29 9.14	13 7.55	54 31.46	11 3.86
	Limited - NM	1 1.86	1 .2	1 1.86	0 0	1 1.86	1 .2	1 1.86	0 0
	Limited - Other	4 3	3 1.95	2 4.62	0 0	3 2.51	3 1.95	1 2.45	0 0
	Closed	381 206.39	130 108.9	528 329	176 80.24	341 161.18	101 73.26	398 210.02	152 69.02
Alternative D	Open	78 122.82	27 104.51	163 451.48	13 15.04	74 114.49	24 92.82	132 382.67	11 13.01
	Limited Admin	34 15.66	23 16.3	89 69.07	16 8.12	30 13.22	19 13.54	61 43.67	11 6.53
	Limited - NM	2 3.48	0 0	3 3.75	2 2.32	2 3.48	0 0	2 2.56	2 2.32
	Limited - Other	2 2.32	0 0	1 2.17	0 0	2 2.32	0 0	0 0	0 0
	Closed	450 262.16	222 284.08	696 518.59	221 107.85	410 208.58	177 222.9	520 340.46	189 88.28

CHART 10 -PUBLIC SAFETY

Public Safety Issues		Open Mines	Illegal Border Activity	Other Public Safety Concerns
Alternative A	Open	16 6.5	1 .34	2 13.53
	Limited -Admin	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0
	Closed	0 0	0 0	0 0
Alternative B	Open	9 4.33	1 .34	2 13.53
	Limited -Admin	1 0.22	0 0	0 0
	Limited - NM	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0
	Closed	6 1.95	0 0	0 0
Public Safety Issues		Open Mines	Illegal Border Activity	Other Public Safety Concerns
Alternative C	Open	5 2.67	1 .34	2 13.53
	Limited Admin	1 0.22	0 0	0 0
	Limited - NM	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0
	Closed	10 3.61	0 0	0 0
Alternative D	Open	0 0	0 0	2 13.53
	Limited -Admin	1 1.24	0 0	0 0
	Limited - NM	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0
	Closed	15 5.26	1 .34	0 0

Chart 11 -Prescribed Setting for Recreation

Prescribed Recreation Settings for Routes		Routes Within Primitive	Routes Within Semi-Primitive	Routes Within Rural Natural	Routes Within Rural Developed	Routes Within Suburban	Routes Within Urban
Alternative A	Open	0 0	166 134.7	1354 1242.96	459 602.26	9 95.87	52 52.68
	Limited -Admin	0 0	0 0	0 0	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0	0 0	0 0
Alternative B	Open	0 0	99 111.63	734 903.69	211 479.96	9 95.87	24 39.23
	Limited -Admin	0 0	0 0	22 11.24	59 26.3	0 0	0 0
	Limited - NM	0 0	1 .2	0 0	0 0	0 0	0 0
	Limited - Other	0 0	3 2.28	3 3.16	0 0	0 0	1 .15
	Closed	0 0	63 20.59	595 324.87	189 96	0 0	26 13.3
Alternative C	Open	0 0	69 95.79	430 726.32	125 425.79	9 95.87	20 37.5
	Limited -Admin	0 0	5 5.58	56 29.16	80 37.31	0 0	0 0
	Limited - NM	0 0	2 2.06	1 1.86	0 0	0 0	0 0
	Limited - Other	0 0	1 1.08	6 6.17	0 0	0 0	1 .15
	Closed	0 0	89 30.19	861 479.45	254 139.16	0 0	30 15.03
Alternative D	Open	0 0	22 60.86	179 416.84	69 295.34	6 34.38	13 30.03
	Limited -Admin	0 0	14 13.1	59 37.21	85 42.05	0 0	0 0
	Limited - NM	0 0	2 2.56	3 4.67	0 0	0 0	0 0
	Limited - Other	0 0	0 0	1 2.17	0 0	0 0	1 .15
	Closed	0 0	128 58.18	1112 782.07	305 264.87	3 61.49	37 22.5

CHART 12 –VISUAL RESOURCE MANAGEMENT CLASSES

<i>VRM Routes</i>		<i>Routes Within VRM CLASS I</i>	<i>Routes Within VRM CLASS II</i>	<i>Routes Within VRM CLASS III</i>	<i>Routes Within VRM CLASS IV</i>
Alternative A	Open	0 0	547 588.84	1612 1552.8	54 153.44
	Limited - Admin	0 0	0 0	0 0	0 0
	Limited - NM	0 0	0 0	0 0	0 0
	Limited - Other	0 0	0 0	0 0	0 0
	Closed	0 0	0 0	0 0	0 0
Alternative B	Open	0 0	337 498.44	792 1081.2	30 141.42
	Limited - Admin	0 0	4 4.63	83 41.65	0 0.00
	Limited - NM	0 0	1 .2	0 0	0 0
	Limited - Other	0 0	5 2.37	3 3.16	1 .15
	Closed	0 0	201 83.2	734 426.79	23 11.87
Alternative C	Open	0 0	223 424.65	448 856.23	27 140.13
	Limited - Admin	0 0	21 14.66	129 70.97	0 0
	Limited - NM	0 0	2 2.06	1 1.86	0 0
	Limited - Other	0 0	6 4.4	2 2.94	1 .15
	Closed	0 0	295 143.07	1032 620.8	26 13.16
Alternative D	Open	0 0	80 222.32	194 524.81	17 71.81
	Limited - Admin	0 0	45 34.38	133 80.5	1 .58
	Limited - NM	0 0	2 2.56	3 4.67	0 0
	Limited - Other	0 0	1 1.99	0 0	1 .15
	Closed	0 0	419 327.41	1286 942.86	35 80.9

CHART 13 -ROUTES ASSOCIATED WITH WILDERNESS

Routes Associated with Wilderness		In or Through Wilderness	Cherry Stem into Wilderness	Boundary Route of Wilderness	Leads to Wilderness	Wilderness Other
Alternative A	Open	0	4	3	81	32
		0	8.81	12.4	90.06	70.42
	Limited - Admin	0	0	0	0	0
		0	0	0	0	0
	Limited - NM	0	0	0	0	0
		0	0	0	0	0
	Limited - Other	0	0	0	0	0
		0	0	0	0	0
	Closed	3	0	0	0	0
		2.1	0	0	0	0
Alternative B	Open	0	4	3	65	15
		0	8.81	12.4	81.11	66.1
	Limited - Admin	0	0	0	1	0
		0	0	0	.26	0
	Limited - NM	0	0	0	0	0
		0	0	0	0	0
	Limited - Other	0	0	0	0	3
		0	0	0	0	1.39
	Closed	3	0	0	15	14
		2.1	0	0	8.69	2.93
Alternative C	Open	0	4	3	45	9
		0	8.81	12.4	68.42	62.28
	Limited - Admin	0	0	0	4	0
		0	0	0	1.25	0
	Limited - NM	0	0	0	0	0
		0	0	0	0	0
	Limited - Other	0	0	0	2	1
		0	0	0	2.8	0.19
	Closed	3	0	0	30	22
		2.1	0	0	17.59	7.95
Alternative D	Open	0	4	2	25	3
		0	8.81	10.87	54.73	58.79
	Limited - Admin	0	0	0	7	3
		0	0	0	3.90	1.52
	Limited - NM	0	0	0	0	0
		0	0	0	0	0
	Limited - Other	0	0	0	1	0
		0	0	0	2.17	0
	Closed	3	0	1	48	26
		2.1	0.00	1.53	29.26	10.11

Chart 14 - Routes within Lands Identified for Disposal

Routes Crossing or found within Public Lands Identified for Disposal.					
Alternative A	Open	118 80.64	Alternative C	Open	37 32.36
	Limited - Admin	0 0		Limited - Admin	0 0
	Limited - NM	0 0		Limited - NM	0 0
	Limited - Other	0 0		Limited - Other	0 0
	Closed	0 0		Closed	81 48.28
Alternative B	Open	52 45.33	Alternative D	Open	18 15.07
	Limited - Admin	0 0		Limited - Admin	4 2.2
	Limited - NM	0 0		Limited - NM	0 0
	Limited - Other	1 0.52		Limited - Other	0 0
	Closed	65 34.79		Closed	96 63.37

APPENDIX C. PRIORITY AND T&E SPECIES WITHIN PLANNING AREA.

	Common Name	Scientific Name	Status	County
Mammals	Large Mammals			
	Yuma mountain lion	<i>Puma concolor browni</i>	AZSC	La Paz, Yuma
	Desert Bighorn Sheep	<i>Ovis canadensis nelsoni</i>	BLM, AZSC	La Paz, Yuma
	Bats			
	Allen's (Mexican) big-eared bat	<i>Idionycteris phyllotis</i>	BLM	La Paz, Yuma
	Arizona myotis	<i>Myotis lucifugus occultus</i>	BLM	La Paz, Yuma
	Big free-tailed bat	<i>Nyctinomops macrotis</i>	BLM,	La Paz, Yuma
	California leaf-nosed bat	<i>Macrotus californicus</i>	AZSC	La Paz, Yuma
	Cave myotis	<i>Myotis velifer</i>	BLM,	La Paz, Yuma
	Fringed myotis	<i>Myotis thysanodes</i>	BLM	La Paz, Yuma
	Mexican long-tongued bat	<i>Choeronycteris mexicana</i>	AZSC	La Paz, Yuma
	Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	BLM	La Paz, Yuma
	Spotted bat	<i>Euderma maculatum</i>	AZSC	La Paz, Yuma
	Western red bat	<i>Lasiurus blossevillei</i>	AZSC	La Paz, Yuma
	Western yellow bat	<i>Lasiurus xanthinus</i>	AZSC	La Paz, Yuma
	Western small-footed myotis	<i>Myotis ciliolabrum</i>	BLM	La Paz, Yuma
Birds	Hawks & Eagles			
	Ferruginous hawk	<i>Buteo regalis</i>	AZSC	La Paz, Yuma
	Bald eagle	<i>Haliaeetus leucocephalus</i>	AZSC, FT	La Paz, Yuma
	Falcons & Caracaras			
	Peregrine falcon	<i>Falco peregrinus anatum</i>	AZSC	La Paz, Yuma
	Owls			
	Cactus ferruginous pygmy-owl	<i>Glaucidium brasilianum</i>	AZSC	La Paz, Yuma
	Western burrowing owl	<i>Athene cunicularia hypugea</i>	BLM	La Paz, Yuma
	Tyrant Flycatchers			
	Thick-billed kingbird	<i>Tyrannus crassirostris</i>	AZSC	La Paz, Yuma
Reptiles	Banded Gila monster	<i>Heloderma suspectum cinctum</i>	BLM,	La Paz, Yuma
	Chuckwalla	<i>Sauromalus ater</i>	BLM	La Paz, Yuma
	Flat-tailed horned lizard	<i>Phrynosoma mcallii</i>	AZSC	La Paz, Yuma
	Mojave fringe-toed lizard	<i>Uma scoparia</i>	AZSC	La Paz, Yuma
	Rosy boa	<i>Charina trivirgata</i>	BLM	La Paz, Yuma
	Sonoran Desert tortoise	<i>Gopherus agassizii</i>	AZSC	La Paz, Yuma
	Yuma desert (Cowles) fringe-toed lizard	<i>Uma notata rufopunctata</i>	AZSC	La Paz, Yuma
Amphibians	Lowland leopard frog	<i>Rana yavapaiensis</i>	AZSC	La Paz, Yuma
Invertebrates	Cheese-weed moth lacewing	<i>Oliarces clara</i>	BLM	La Paz, Yuma
	MacNeill sooty wing skipper	<i>Hesperopsis graciellae</i>	BLM	La Paz, Yuma
AZSC= Arizona Species of Concern ,BLM= A BLM Sensitive Species, FE= Federal Listed Endanger Species, FT=Federal Listed Threaten,				

APPENDIX D. SOCIOECONOMICS STUDIES

Background for the socioeconomic section of the Environmental Assessment was derived from the following six published articles. These articles looked at the economic value of tourism; recreation trails, and off-highway vehicle use. Below are listed the articles consulted by title, year, authority with a website link and a short abstract of the information provided.

1	Title:	<i>The Outdoor Recreation Economy</i>
	Year:	2012
	Author(s):	Outdoor Industry Association
	Website/Link:	http://www.outdoorindustry.org/images/researchfiles/OIA_OutdoorRecEconomyReport2012.pdf
	Abstract:	This report looks at current economic values of outdoor recreation on a national scope. Nationally there is \$646 billion in direct sales of outdoor recreation products and trips and related spending. It also stated that outdoor recreation economy actually grew 5% during the recession rather than contracted. As part of the conclusion the report states that the nation's public recreation lands and waters support this economy and access to quality places is fundamental.

2	Title:	<i>Arizona 2010 Tourism Facts, Year-End Summary</i>
	Year:	2011
	Author(s):	Arizona Office Of Tourism
	Website/Link:	http://www.azot.gov/system/files/524/original/2010%20AOT%20Tourism%20Facts%20Final%20102711.pdf?1320360891
	Abstract:	A study of visitors to Arizona, where do they come from and what is their economic value to the state. It states that there were 3.4 million overnight visitors to Arizona's West Coast (includes Bullhead, Lake Havasu, Parker, Quartzsite, and Yuma). Average stay was 2.8 nights, and 74% of the accommodations were paid. Thirty-percent visitors came during the first quarter for the year. The study also stated that 1,100 jobs in La Paz were directly related to the travel industry.

3	Title:	<i>2010 County Business Patterns (NAICS) for State: Arizona Arealname: La Paz AZ</i>
	Year:	2010/2000
	Author(s):	United States Census
	Website/Link:	http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl
	Abstract:	The total number of business for La Paz county in 2010 was 344 that was a decrease of 18 establishments from 2000. Over the decade, there was a decrease in firms in the following sectors: "Agriculture, Forestry, Fishing and Hunting," "Arts, entertainment and recreation" and "Accommodations & food services." So overall the number of the type of business that might have provided services to users of the travel network the roads, primitive roads and trails decreased over the past ten years.

4	Title:	<i>Arizona Trails 2010: A Statewide Motorized & Non-Motorized Trails Plan</i>
	Year:	2010
	Author(s):	Arizona State Parks and Arizona State University.
	Website/Link:	http://azstateparks.com/publications/downloads/2009_Trails_2010_Final_c.pdf

Abstract:

This planning document details the results of extensive surveys of 5,000 Arizonans' thoughts, preferences and priorities regarding trails and off-highway vehicle routes. The questions were asked via telephone, online (Internet), mail, at public meetings and open forums, and in the field at trailheads. The survey and workshop results can be found throughout this document and in the appendices. The portion of Executive Summary covering the survey as follows

Summary of Survey Findings

- The telephone survey results show that 68.6% of Arizonans have used a trail for recreation during their time in Arizona; 31.4% of residents do not use trails for recreational purposes.
- Statewide, 63.7% of respondents indicated that they had engaged in non-motorized activities on trails at some point during their time in Arizona, and 58% of trail users indicated that the *majority* of their trail use is non-motorized.
- Statewide, 21.5% of respondents indicated that they had engaged in motorized activities on trails at some point during their time in Arizona, and 10.7% of trail users said that motorized use accounted for the *majority* of their trail use.
- The percentage of non-motorized trail users ranged from a high of 68.3% in Coconino County to a low of 34.6% in Yuma, La Paz, and Mohave Counties. The percentage of motorized trail users ranged from a high of 22.2% in Yuma, La Paz, and Mohave Counties to a low of 7.9% in Pima County.
- Overall, 87% of respondents are either very satisfied or satisfied with non-motorized trails in Arizona, and 65% are either very satisfied or satisfied with motorized trails.
- The most common non-motorized trail activities for non-motorized trail users are: trail hiking, backpacking, mountain biking, and horseback riding.
- The most common motorized pursuits for motorized users are: all-terrain vehicle driving, four wheel driving or other high clearance vehicle driving, and motorized biking/dirt biking.
- Overall, the top three areas of environmental concern for *all trail users* are litter or trash dumping, decreased wildlife sightings, and erosion of trails. The top three concerns for *motorized users* are litter or trash dumping, damage to vegetation, and decreased wildlife sightings. The top three environmental concerns for *non-motorized users* are litter or trash dumping, erosion of trails, and decreased wildlife sightings.
- Overall, the top concerns about social conditions for *all trail users* are vandalism, urban development limiting trail access or use, and lack of trail ethics by other users. The top three concerns about social conditions for *motorized users* are urban development limiting trail access or use, vandalism, and closure of trails. The top three concerns about social conditions for *non-motorized users* are vandalism, urban development limiting trail access or use, and lack of trail ethics by other users.
- The top three trail planning and management priorities for *motorized users* are acquiring land for trails and trail access, keeping existing trails in good condition, and mitigating damage to environment surrounding trails. The top three issues for *non-motorized users* are keeping existing trails in good condition, mitigating damage to environment surrounding trails, and enforcing existing rules and regulations in trail areas.
- When asked, given limited funding, which one management priority is the most important, motorized trail users indicated acquiring land for trails and access (20%) was most important, whereas non-motorized users replied keeping existing trails in good condition (32%). Non-motorized users are more likely to respond that trails should be designated for multiple activities but with motorized and non-motorized users separated, or trails should be designated for a single activity.
- Both motorized and non-motorized users tend to use trails in groups of 1-5 people, although motorized users were more likely to recreate in groups of 5 or more.
- Nearly half of motorized users (44.4%) believe that access to off-highway vehicle roads and trails has declined in the last five years. In contrast just 11% of both groups believe that access to non-motorized trails has declined.
- On non-motorized trails, both groups tend to prefer social environments with very few or some other people around but not dense social settings with lots of other people present.
- The three most important desired off-highway vehicle trail features for motorized users are loop trails, trails that offer challenge and technical driving opportunity, and cross-country travel areas (where riding anywhere is permitted).
- The results indicate that, by and large, respondents do not experience recreation conflict with other trail users, although there are some areas of potential concern. For instance, 13.7% of non-motorized users reported experiencing conflict with mountain bikers somewhat or very often. Also, 33.4% of motorized trail users experienced conflict with all-terrain vehicle or quad riders somewhat or very often.
- More than 50% of motorized users and more than 40% of non-motorized users are willing to volunteer their time to build or maintain trails in Arizona. To encourage volunteerism, the most important consideration is providing information about when and where to show up.

5	Title:	<i>Arizona's West Coast, Regional Tourism Profile, Compiled for the Arizona Department of Tourism, Overview Of Mohave County Population, Earnings, And Personal Income</i>
	Year:	2004
	Author(s):	Ron Walker, County Manager
	Website/Link:	http://resource.co.mohave.az.us/File/General/MohaveEconomy.pdf
	Abstract:	While this study is about Mohave County, it discusses of visitors to the "west coast" of Arizona, where do they come from and what is their economic value to the region: "2.2 million visitors come to the Arizona West Coast annually. 69% of those who travel here are from out of Arizona; that equals 1,518,000 out of state visitors. The Los Angeles area provided 37%, or 561,660 of these visitors." "The average Arizona domestic overnight visitor spent \$75 per person per day in 2002. Arizona's West Coast Domestic Overnight Leisure visitors stayed for an average of 3.1 nights. Using these figures, over \$500,000,000 comes into the Arizona West Coast economy annually from tourism."

6	Title:	<i>The Economic Importance of Off Highway Vehicle Recreation to Arizona.</i>
	Year:	2003
	Author(s):	Arizona State Parks
	Website/Link:	http://azstateparks.com/ohv/downloads/OHV_Economic.pdf
	Abstract:	This report presents the economic impact off-highway vehicle activities had on Arizona in 2002. In the introduction it was stated that, 21% of Arizonans, or 1.1 million people, consider themselves off-highway vehicle enthusiasts with 25.5 off-highway vehicle days per year . One Off-highway Vehicle Recreation Day = One household spending at least part of a day participating in an off-highway vehicle recreational activity. The following are the 2 pages from this report covering La Paz County.

Additional documents were taken into consideration after our initial public comment period.

1	Title:	<i>2013 Statewide Comprehensive Outdoor Recreation Plan (SCORP)</i>
	Year:	2013
	Author(s):	Arizona State Parks
	Website/Link:	http://azstateparks.com/press/2012/PR_09-10-12.html
	Abstract:	Details the impacts tourism has on the State of Arizona and provides recommendations for improving recreation in State of Arizona.

2	Title:	<i>2010 Statewide Motorized and Non-Motorized Recreational Trails Plan</i>
	Year:	2010
	Author(s):	Arizona State Parks
	Website/Link:	http://azstateparks.com/publications/downloads/2009_Trails_2010_Final_c.pdf
	Abstract:	The Plan is written primarily for recreation planners and land managers. In its component parts, it provides background on trail users, on current trends and issues affecting recreational off-highway vehicle and non-motorized trail opportunities, and on trail and off-highway vehicle funding and management priorities. The Plan is designed as an information resource as well as a planning tool to guide agencies for the next five years.

3	Title:	<i>2005 La Paz County Comprehensive Plan</i>
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Year:	2005
Author(s):	La Paz County
Website/Link:	http://www.co.la-paz.az.us/2010_La%20Paz%20County%20Comprehensive%20Plan.pdf
Abstract:	The Comprehensive Plan provides a new tool to evaluate development proposals based on sound planning principals and also provides direction for additional planning efforts that will support the implementation of this plan.

LA PAZ COUNTY

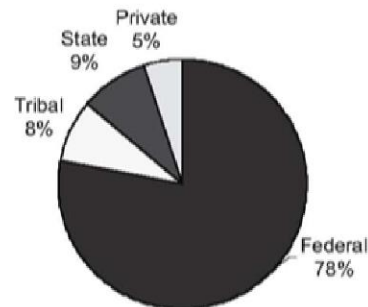


Economic Importance of Off-Highway Vehicle Recreation to La Paz County

La Paz County is located on the western border of the state. It has 0.38% (19,715) of the state's population and 3.96% (2,891,502 acres or 4,517 square miles) of the state's land base. This averages out to four people per square mile. The landscape is primarily Sonoran Desert with several low elevation mountains. The region offers desert OHV opportunities including numerous remote backcountry roads and trails.

- 34% of households in La Paz County are OHV users; state percentage is 21%.
- 5% of all Arizona OHV trip destinations for past 12 months were to La Paz County.
- 344,550 OHV Recreation Days occur annually in La Paz County; 2.8% of Arizona's total.
 - 191,319 OHV Recreation Days (55%) are from La Paz County residents.
 - 153,230 OHV days (45%) are from other Arizona residents traveling to La Paz County.
- 94% of La Paz County OHV households are satisfied with their overall OHV experience.

Land Ownership



Total Economic Impact to La Paz County from OHV Recreation is \$50 MILLION/year

DIRECT ECONOMIC IMPACT—(\$ in millions)

<i>Off-Highway Vehicle Related Expenditures</i>	<i>Total for La Paz County</i>	<i>By County Residents</i>	<i>By Other Arizona Residents</i>
OHV Trips—Fuel/Gasoline	\$5.9 M	\$4.3 M	\$1.6 M
Lodging/Campgrounds	\$2.3 M	\$0.6 M	\$1.7 M
Restaurants/Bars	\$3.4 M	\$2.2 M	\$1.2 M
Groceries/Liquor	\$4.5 M	\$3.2 M	\$1.3 M
Other (event fees, souvenirs, etc.)	<u>\$3.4 M</u>	<u>\$1.8 M</u>	<u>\$1.6 M</u>
• Total OHV Recreation Trips	\$19.5 M	\$12.1 M	\$7.4 M
• Off-Highway Vehicles	+ \$13.7 M		
• Tow Vehicles/Trailers	+ \$2.4 M		
• OHV Equipment	+ <u>\$8.5 M</u>		

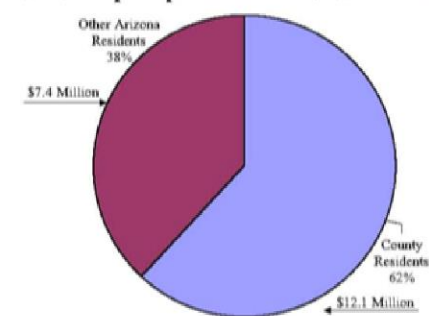
Total OHV Expenditures = \$44.1 Million

TOTAL IMPACT- Multiplier Effect* \$49.7 Million

INDIRECT ECONOMIC IMPACT

• Full-time/Part-time Jobs (#)	459
• Salaries/Wages	\$8.3 Million
• State Tax Revenues	\$1.9 Million

OHV Trip Expenditures—\$19.5 Million



Economic Importance of Off-Highway Vehicle Recreation to Arizona

Arizona State Parks 2003

Economic Importance of OHV Recreation to La Paz County

- Creates a statewide economic impact of \$49.7 million (multiplier effect)*
- Contributes \$44.1 million to local economies through OHV-related expenditures
- Adds \$1.9 million to annual state tax revenues
- Provides \$8.3 million in income (salaries/wages) for La Paz County residents
- Supports 459 jobs in La Paz County

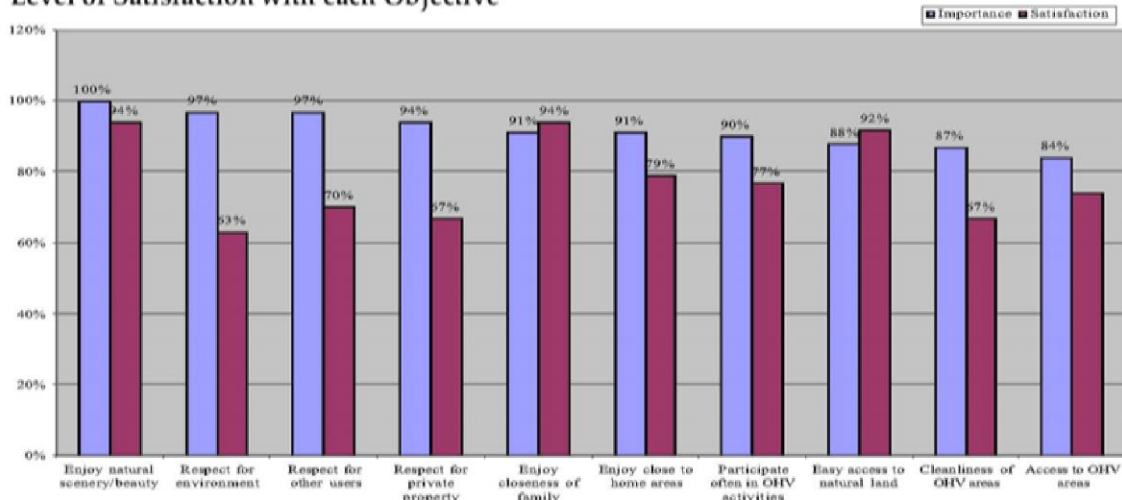
"Top Ten" Main Reason for taking last OHV Trip

- Sightseeing 21%
- Driving backroads 15%
- Trail riding-ATVs 12%
- Visiting historic/arch. sites 6%
- Fishing 6%
- Photography 3%
- Wildlife/bird watching 3%
- Hiking or walking 3%
- Picnicking 3%
- Trail riding-motorbikes 3%

"Top Ten" Outdoor Activities done on last OHV Trip

- Driving backroads 83%
- Sightseeing 71%
- Picnicking 71%
- Trail riding-ATVs 46%
- Hiking or walking 46%
- Photography 46%
- Visiting historic/arch. sites 37%
- Driving in open areas 37%
- Wildlife/bird watching 34%
- Hill climbing 31%

Evaluation of Last OHV Recreation Trip—"Top Ten" Objectives Rated as Most Important and Level of Satisfaction with each Objective



Type of Vehicle(s) used on last OHV Trip

- All Terrain Vehicle (ATV) 46%
- 4WD Pickup Truck 37%
- Sport Utility Vehicle/Jeep 26%
- Dune Buggy/Sand Rail 9%
- Trail Motorcycle 6%
- 2WD Pickup Truck 3%
- Snowmobile 0%

*Multiplier Effect: sum of OHV expenditures, secondary effects generated by local re-expenditure of money, and induced impact from salaries paid by directly and indirectly impacted industries.



For more information contact:
 Arizona State Parks
 Recreational Trails
 1300 W. Washington St.
 Phoenix, AZ 85007
 Tel & TTY (602) 542-7174
www.azstateparks.com

Economic Importance of Off-Highway Vehicle Recreation to Arizona

Arizona State Parks 2003

APPENDIX F. ROUTE DESIGNATION REPORTS

Due to the 3,024 pages, route reports are being provided upon request to the Yuma Field Office at 2555 E Gila Ridge Road, Yuma, Arizona 85365.

APPENDIX G. SOURCES CITED

- Arizona State Parks. 2003. The Economic Importance of Off-Highway Vehicle Recreation to Arizona. Website source last accessed 10-14-2015: www.azstateparks.com/ohv/downloads/OHV_Economic.pdf
- Beever, E. A., P. F. Brussard, and J. Berger. 2003. Patterns of apparent extirpation among isolated populations of pikas (*Ochotona princeps*) in the Great Basin. *Journal of Mammalogy*. 84: 37–54.
- Belnap, J., J. Kaltenecker, R. Hilty, W. Roger, S. L. John, and D. Eldridge. 2001 Biological Soil Crusts: Ecology and Management. *Technical Reference* 1730-2. Denver Colorado: USDOIBLM.
- Bernstein, L., P. Bosch, O. Canziani, Z. Chen, R. Christ, O. Davidson, W. Hare, S. Huq, D. Karoly, V. Kattsov, Z. Kundzewicz, J. Liu, U. Lohmann, M. Manning, T. Matsuno, B. Menne, B. Metz, M. Mirza, N. Nicholls, L. Nurse, R. Pachauri, J. Palutikof, M. Parry, D. Qin, N. Ravindranath, A. Reisinger, J. Ren, K. Riahi, C. Rosenzweig, M. Rusticucci, S. Schneider, Y. Sokona, S. Solomon, P. Stott, R. Stouffer, T. Sugiyama, R. Swart, D. Tirpak, C. Vogel, G. Yohe. 2007. Climate Change Synthesis Report: An Assessment of the Intergovernmental Panel on Climate Change. IPCC Plenary XXVII (Valencia, Spain, 12-17 November 2007).
- CCSP 2008: The effects of climate change on agriculture, land resources, water resources, and biodiversity. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. P. Backlund, A. Janetos, D. Schimel, J. Hatfield, K. Boote, P. Fay, L. Hahn, C. Izaurralde, B. A. Kimball, T. Mader, J. Morgan, D. Ort, W. Polley, A. Thomson, D. Wolfe, M. Ryan, S. Archer, R. Birdsey, C. Dahm, L. Heath, J. Hicke, D. Hollinger, T. Huxman, G. Okin, R. Oren, J. Randerson, W. Schlesinger, D. Lettenmaier, D. Major, L. Poff, S. Running, L. Hansen, D. Inouye, B. P. Kelly, L. Meyerson, B. Peterson, R. Shaw. U.S. Environmental Protection Agency, Washington, DC., USA, 362 pp.
- Chambers, J. C. and M. J. Wisdom. 2009. Priority Research and Management Issues for the Imperiled Great Basin of the Western United States. *Restoration Ecology* Vol. 17, 5: 707–714.
- Crozier, L. 2003. Winter warming facilitates range expansion: cold tolerance of the butterfly *Atalopedes campestris*. *Oecologia*. 135: 648–656.
- Crozier, L. 2004. Warmer winters drive butterfly range expansion by increasing survivorship. *Ecology*. 85:231–241.
- Ehrenfeld, J. G. 2003. Effects of Exotic Plant Invasions on Soil Nutrient Cycling Processes. *Ecosystems* 6: 503–523. DOI: 10.1007/s10021-002-0151-3.
- Furniss, Michael J., Brian P. Staab, Sherry Hazelhurst, Cathrine F. Clifton, Kenneth B. Roby, Bonnie L. Ilhadrt, Elizabeth B. Larry, Albert H. Todd, Leslie M. Reid, Sarah J. Hines, Karen A. Bennett, Charles H. Luce, Pamela J. Edwards. 2010. Water, climate change, and forests: watershed stewardship for a changing climate. Gen. Tech. Rep. PNW-GTR-812. Portland, OR: U.S. Department of Agriculture, Forest Service. Service, Pacific Northwest Research Station. 75 p.
- Galbreath, Kurt E., David J. Hafner, and Kelly R. Zamudio. 2009. When Cold is Better: Climate-Driven Elevation Shifts Yield Complex Patterns of Diversification and Demography in an Alpine Specialist (American Pika, *Ochotona princeps*). *The Society for the Study of Evolution*. *Evolution* 63-11: 2848–2863.
- Hamlet, A. F. and D. P. Lettenmaier. 2007. Effects of 20th century warming and climate variability on flood risk in the western U.S. *Water Resources Research*, 43, W06427, DOI:10.1029/2006WR005099.
- Hegerl, G. C., F. W. Zwiers, P. Braconnot, N. P. Gillett, Y. Luo, J. A. Marengo Orsini, N. Nicholls, J. E. Penner, and P. A. Stott, 2007: Understanding and attributing climate change. In: *Climate Change*

- 2007: The Physical Science Basis. Contribution of working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor, and H. L. Miller (eds.)]. Cambridge University Press, Cambridge, UK, and New York, pp. 663-745.
- Inouye, D. W., B. Barr, K. B. Armitage and B. D. Inouye. 2000. Climate change is affecting altitudinal migrants and hibernating species. *Proceedings of the National Academy of Sciences*. 97: 1630–1633.
- Izaurrealde, R. C., A. M. Thomson, J. A. Morgan, P. A. Fay, H. W. Polley, and J. L. Hatfield. 2011. *Climate Impacts on Agriculture: Implications for forage and Rangeland Production*.
- Janetos, A., L. Hansen, D. Inouye, B. P. Kelly, L. Meyerson, B. Peterson, and R. Shaw. 2008. Biodiversity. In: *The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States* [Backlund, P., A. Janetos, D. Schimel, J. Hatfield, K. Boote, P. Fay, L. Hahn, C. Izaurrealde, B. A. Kimball, T. Mader, J. Morgan, D. Ort, W. Polley, A. Thomson, D. Wolfe, M. G. Ryan, S. R. Archer, R. Birdsey, C. Dahm, L. Heath, J. Hicke, D. Hollinger, T. Huxman, G. Okin, R. Oren, J. Randerson, W. Schlesinger, D. Lettenmaier, D. Major, L. Poff, S. Running, L. Hansen, D. Inouye, B. P. Kelly, L. Meyerson, B. Peterson, and R. Shaw (eds.)]. *Synthesis and Assessment Product 4.3*. US Department of Agriculture, Washington, DC, pp. 151-181.
- Karl, T. R., J. M. Melillo, and T. C. Peterson. 2009. *Global Climate Change Impacts in the United States*. Cambridge University Press. (eds.).
- Meehl, G. A., T. F. Stocker, W. D. Collins, P. Friedlingstein, A. T. Gaye, J. M. Gregory, A. Kitoh, R. Knutti, J. M. Murphy, A. Noda, S. C. B. Raper, I. G. Watterson, A. J. Weaver and Z. C. Zhao, 2007: Global Climate Projections. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Norton, J. B., T. A. Monaco, J. M. Norton, D. A. Johnson, T. A. Jones. 2003. Soil morphology and organic matter dynamics under cheatgrass and sagebrush-steppe plant communities. *Journal of Arid Environments* (2004). 54: 445–466.
- Reid, L. and T. Lisle. 2008. *Cumulative Effects and Climate Change*. U.S. Department of Agriculture, Forest Service, Climate Change Resource Center. Website source last accessed 10-14-2015: <http://www.fs.fed.us/ccrc/topics/cumulative-effects.shtml>. May 20.
- Strittholt, J. R., S. A. Bryce, B. C. Ward, and D. M. Bachelet. 2012. *Sonoran Desert Rapid Ecoregional Assessment Report*. Prepared for the U.S. Department of the Interior, Bureau of Land Management, Denver, Colorado. March. Website source last accessed 10-14-2015: http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas/sonoran.html
- Timmerman, A., J. Oberhuber, A. Bacher, M. Esch, M. Latif, and E. Roeckner. 1999. Increased El Niño frequency in a climate model forced by future greenhouse warming. *Nature*. 398: 694-697.
- U.S. Department of Agriculture, U.S. Forest Service,(USDA, USFS)
- 2005 Off-Highway Vehicle Recreation in the United States, Regions and States: A National Report from the National Survey on Recreation and the Environment (NSRE), H. Ken Cordell, Carter J. Betz, Gary Green, Matt Owens. Website source last accessed 10-14-2015: www.fs.fed.us/recreation/programs/ohv/OHV_final_report.pdf

U.S. Department of the Interior

Bureau of Land Management (USDOI BLM)

1997 La Posa Interdisciplinary Management Plan (IMP), Yuma Field Office. (Unavailable on line)

- 2001 The Federal Land Policy and Management Act, as amended. U.S. Office of the Solicitor (editors)
Website source last accessed 10-14-2015: <http://www.blm.gov/flpma/FLPMA.pdf>
- 2001 National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands. Website source last accessed 10-14-2015:
www.ntc.blm.gov/krc/uploads/320/National%20OHV%20Strategy.pdf
- 2005 Land Use Planning Handbook, H-1601-1. Website source last accessed 10-14-2015:
http://www.blm.gov/pgdata/etc/medialib/blm/ak/aktest/planning/planning_general.Par.65225.File.dat/blm_lup_handbook.pdf
- 2006 Recreation Permit Administration Handbook, H-2930-1. Website source last accessed 10-14-2015:
www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.22509.File.dat/h2930-1.pdf
- 2006 Roads and Trails Terminology, Technical Note 422. Website source last accessed 10-14-2015: www.blm.gov/nstc/library/pdf/TN422.pdf
- 2006 Travel and Transportation Management, Planning and Conducting Route Inventories, Technical Reference 9113-1. Website source last accessed 10-14-2015:
www.blm.gov/nstc/library/pdf/TR9113-1.pdf
- 2007 Yuma Field Office Record of Decision and Approved Resource Management Plan. Website source last accessed 10-14-2015: www.blm.gov/az/st/en/prog/planning/yfo-final.html
- 2008 Instruction Memorandum No. 2008-014: Clarification of Guidance and Integration of Comprehensive Travel and Transportation Planning into Land Use Planning. Website source last accessed 10-14-2015:
www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/20080/im_2008-014.html
- 2008 National Environmental Policy Act Handbook, H-1790-1. Website source last accessed 10-14-2015:
[www.blm.gov/pgdata/etc/medialib/blm/ak/aktest/planning/planning_general.Par.2116.File.dat/Handbook.NEPA.H-1790-1.2k8.01.30\[1\].pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ak/aktest/planning/planning_general.Par.2116.File.dat/Handbook.NEPA.H-1790-1.2k8.01.30[1].pdf)
- 2009 Bureau of Land Management, Asset Management Plan. Website source last accessed 10-14-2015:
www.blm.gov/pgdata/etc/medialib/blm/wo/Business_and_Fiscal_Resources/asset_management_plan.Par.66677.File.dat/2009AssetManagementPlan.pdf
- 2010 Yuma Field Office Record of Decision and Approved Resource Management Plan (Jan. 2010). Website source last accessed 10-14-2015.

Weinstein, S., A. Gondor, and J. Hall. 2003. *Preliminary Assessment of Biodiversity Values and Management Framework Adaptation for the Expanded Kofa Complex and Yuma Resource Management Area in Southwestern Arizona*. The Nature Conservancy, Tucson, AZ.